

MOTOR AGE

Vol. VII No. 2

CHICAGO, JANUARY 12, 1905

Ten Cents



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the Car Is a

Packard

Model N
Double Side Entrance
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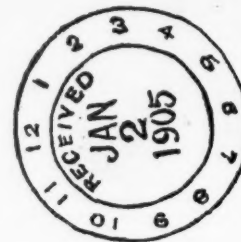
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Morgan & Wright

My pope toledo with your tires won one hundred mile race today
in two hours six minutes and forty two seconds We are sending one
of the tires back to show you how they finished in one hundred
mile race.

E.H.R.Green

758.



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MOTOR AGE

VOL. VII. NO. 2

CHICAGO, JANUARY 12, 1905

\$2.00 Per Year

IMPORTERS' OPENING A SWELL FUNCTION



and tradesmen; there were several hundred other plain, ordinary, everyday Americans also. It can be said the salon had a most successful and encouraging inauguration. Tomorrow morning the doors will be thrown open to the general public at 50 cents per. On two Mondays the swells can jolly the members by paying a dollar admission and social lion hunters can part with the same amount to look at them. Altogether very foreign, very Parisian, and very swell, is the salon.

Those present at the opening found an exhibition complete enough to answer first-night purposes. The crowd filled the bare spots so that they were not noticed. Stories of delayed exhibits and that the whole show was on the wane had been in circulation. Exactly fifty cars were distributed among close to a score of stands. Forty-five of them were foreign. President Mabley said that thirteen of them had just been brought over and that some twenty-five more were at the customs house or on incoming steamers. The balance of the exhibit will, it can be inferred, consist of cars already on hand.

So far as decorations, uniformity, excellence of stand arrangements and auxiliary attractions go, the importers can be sincerely and truthfully praised and congratulated in superlatives. They promised a beautiful show. They



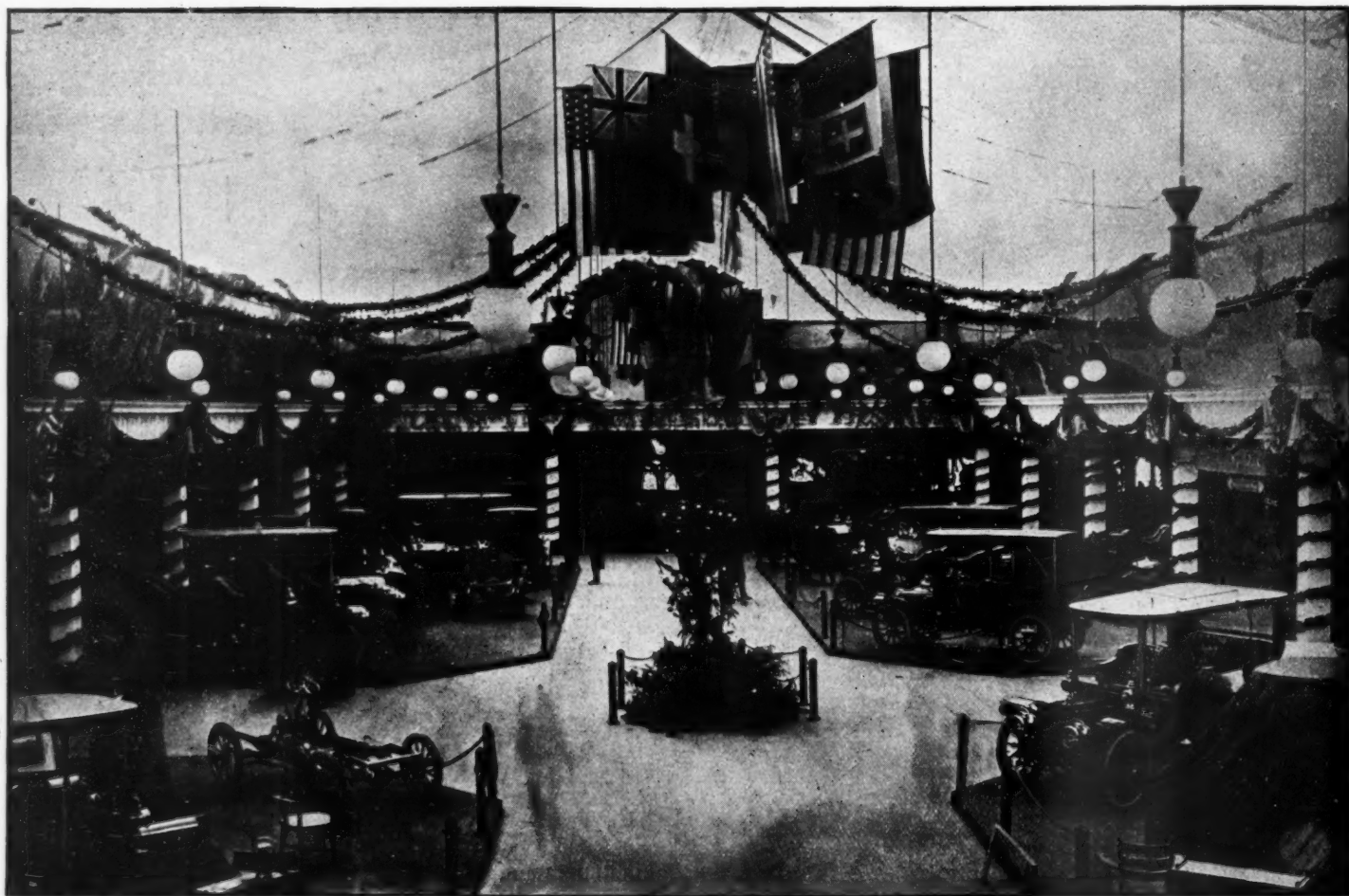
NEW YORK, N. Y., Jan. 10—Special Telegram—With the cleverly conceived and well-carried-out endorsement of representatives of the foreign legations and a large attendance of many known to fame as high social lights in the metropolis, that marked showmen with an idea to ambitious advertising possibilities, the importers' automobile salon had its formal opening at Herald Square exhibition hall tonight.

It was an invitation affair; cards had been sent, it is reported, to some 7000 New Yorkers including, of course, the social register's full list. There was a very encouraging response. The aisles were thronged and the stands overflowed with a representative, well-dressed New York throng. Social names known to newspaper fame were whispered. It is a safe guess that the Four Hundred was well in evidence. Your correspondent saw some of the members of the swell automobile crowd, whom everyone knows and he assumes there were many others of the fashionable set on hand. President Mabley and the members of the salon looked and talked as though what they had expected had been accomplished.

There was a sprinkling of American makers

have certainly provided one. There are about it artistic embellishments, pleasing arrangement and good taste. When one compares it with the grandeur of Madison Square garden exhibits it lacks impression. It has the beauty of a charming room in Marshall Field's in Chicago, or the Magazine du Louvre in Paris, though the latter is a wild guess by the writer. Perched on the top floor of a big department store and for the most part beneath low ceilings, it conveys nothing of the idea of a great show. It is, though, a good display by a branch of the industry entirely overmatched in magnitude by the American end of it.

But there must be an apology for having for a moment forgotten the august presence of the Belgian ambassador and the honorable secretaries and attaches of the foreign legation, who came from Washington to assist at this transplanted foreign function. Our own Chauncey had been invited to open the show by a pressure of his senatorial finger, which was to flash the signs and lights into flame. Senator Depew, however, failed to materialize.



AS THE IMPORTERS' SALON IN NEW YORK APPEARED WEDNESDAY MORNING

In the emergency that ever-ready devotee of automobiling, Winthrop E. Scarrett, was secured as button pusher. For half an hour the expectant auditors had sat and stood facing the official platform in semi-darkness. In introducing Mr. Scarritt President Mabley read an almost inaudible opening address in a half light over the salon court, and the band at the other end of the hall missed its cue and broke loose in magic interruption. Finally Mr. Scarrett arose, shouted: "I declare the importers' salon open," and pressed the button. The lights flamed and each auditor gazed about to see what his neighbor looked like. Scarritt as usual was all right as an orator, quoted the classics with courage, sung among the clouds and pronounced the automobile the plaything of the few, the servant of the many and soon to be the necessity of all.

Baron Moncheur, the Belgian ambassador, on behalf of his European colleagues congratulated the promoters on the salon's success, declared that such a show would call greater attention to the progress of the foreign cars, and said that Americans were best of all citable of appreciating it. Monsieur Des Portes de la Fosse, counsellor of the French embassy, read an address in French to President Mabley. Mabley understands French and seemed to think what was said to him was all right. Scheller Steinwarts, secretary of the German embassy, clearly intelligible linguist and a good jollier, declared that the American industry had advanced by leaps and bounds and that such shows engendered competition beneficial to all. He declared the automobile to be a German invention. The French diplomat cannot understand English, so there was no challenge to a duel. Mine Herr said that the automobile was bringing the nations closer

together and proving that gasoline was thicker than water.

Assistant Secretary of the Treasury Armstrong, who was the last speaker, said: "We welcome you foreigners to competition with us; we think we build better cars than you do, but if you can show us we do not we will buy cars of you and drive them."

Mr. Contaro, an attache of the Italian embassy, talked to President Mabley in French, and no doubt told him that the Fiat car was the best that ever happened. Following the speeches the distinguished visitors were escorted down the aisles to a medley of their national airs. It was all very foreign and apropos. It must be noted, to the credit of the Americans who are promoting the show, that the exercises began with the Star-Spangled Banner, at which all rose and all hats came off.

The lighting and the exercises over, the invited guests and critics had a chance to look about them and see what a really beautiful show the importers had conceived and carried out. The chorus of praise was unstinted.

The floor is said to contain 60,000 square feet of space. Four lines of posts running east and west support the roof. Between the middle rows is an ample space surmounted by a dome like a rounded glass bonnet running the entire length of the hall. The decorators had seen fit to conceal this with strips of white bunting which took from the lofty effect the dome itself would have given the center of the hall. This was the only feature of the decorations to receive criticism. What impressed the observer most was the absolute and impartial uniformity of the stands. Each consisted of a special raised, green-carpeted platform bounded by oak posts through which ran green ropes. The signs of all the booths in the cen-

ter, which were almost utterly devoted to cars, were green with gold letters. Each letter was bordered with tiny globes. When the lights were turned on each exhibitor had an electric sign. In daylight the effect was of plain gold lettering on a green background. The signs bore the name of the car, flanked by the country and town of its manufacture. A small pendant sign bore the name of the agent. The signs of the stands around the walls, devoted to accessory exhibitors, were maroon with gold lettering, also electric lighted. On these more elaborate lettering was permitted, though uniformity was observed. Each stand had the same mission furniture desk and chairs. Smith & Mabley, the Standard Automobile Co., F. A. Laroche & Co. and Hollander & Tangeman were in the center and had the largest show.

Festoons of green and incandescent lights stretched to the ceiling of the dome and encircled the center posts. American flags entwined the next line of posts, and red, white and blue bunting the outer row. At the head of each post there were flags of the nation to which the nearby car belonged. Clusters of flags hung in four bunches from the ceiling of the dome and were set at the center and main cross aisle. There were five aisles running east and west, and four north and south. In the center of the hall was a bronze Cupid in a bush of electric lights. At the west end was an elevated band stand and at the east end a speakers' platform decorated with roses and daisies.

The piece de resistance of the decoration scheme, however, was a painting running around the dome as a frieze, depicting a road race. It was painted by Jean Paleologue, a French artist, better known as Pal. Racing cars of international makes were fiercely speeding

along the course uphill and down, across bridges and along stretches; the road was lined with spectators and automobiles in groups; there were disabled cars being mended; tire repair camps and all the paraphernalia of such a race. The picture was made up of twenty-two panels 20 by 10 feet each. Pal told the MOTOR AGE man it took him but twenty-two days to paint it. The press agent says the picture cost \$10,000, which was thus nearly a \$500 a day job for the thrifty Pal. Some of the local newspapers are sadly figuring out how far that ten thousand would have gone toward the advertising they did not get. It is to be noted in explanation of this reference that the importers entered into an agreement to spend no money for show advertising as individuals. The management put out a big bunch of advertising but the daily paper to which they look to give the show the chief support got the lion's share of it in full-page bunches. Hence the tears and threats.

The importers have not relied on the cars and the decorations alone to draw visitors. At the west end of the hall is a Japanese tea garden with thatched cottages, where real Geisha girls serve you with tea. Man may quench his thirst in a booze grotto, woman may adjust her hairpins in a pink parlor, and all may eat in a palm garden. Before the salon ends 2 weeks hence a view is promised of fifty or more of the 1905 models of European cars exhibited at the Paris show.

SUCCESS DOUBTFUL



New York, N. Y., Jan. 11—Special Telegram—It may be going too far and may be too premature thus early to pronounce the importers' automobile salon a frost, but the plain truth, without mincing words, is that the outlook from this morning's, afternoon's and evening's attendance is decidedly in the direction of a serious financial—from a gate standpoint—failure, if the reported cost of the show has not been too grossly exaggerated. What will happen when Madison Square garden is thrown open in opposition is certainly not encouraging for the promoters to contemplate.

The attendance in the morning was insignificant and in the afternoon not more than a hundred people were in the hall at any one time. It is whispered, in fact, that the gate receipts up to dinner time was far below a hundred dollars. There was some improvement in the crowd tonight but up to 9 o'clock it could not have reached 200 persons. The fashionables may come later than the time at which this is written.

It is a beautiful show in its fittings and

surroundings and there are more than half a hundred examples of the best that Europe can produce in the way of cars. Five thousand viewed them on the opening night. It may be that the show is not extensive enough to compel the continued visits necessary to make the affair a financial success. It may be that the interest in European cars is lessening or was not so wide spread as was imagined.

The importers behind the affair thought that an independent show would be the better for them and backed their opinion courageously. It looks as though their judgment was wrong. They smile pluckily tonight; gamely express themselves as satisfied; talk of promising inquiries, and tell of sales already made. It looks, though, to be a case of hoping against hope. There is a lot of good fellows and praiseworthy business men among them. If their enterprise should prove disastrous they will have many sincere sympathizers in the local trade and among tradesmen at large.

Much indignant criticism has been aroused in the American trade over a couple of sentences in an editorial of the Herald this morning laudatory of the importers' show. The Herald says in part: "No cheap or tawdry machines, no wire automobiles fastened with hairpins are on the floor. The class is so high that the cheapest automobile in the place costs \$5,000." The attitude of the Herald toward the American automobile trade is far from pleasing to that thriving industry.

EXHIBITORS AT THE SALON

New York, N. Y., Jan. 11—Special Telegram—A count of the exhibits at the importers' automobile salon at 5 o'clock this afternoon showed twenty-one exhibitors of complete cars. There were eighteen exhibitors showing accessories. There were sixty cars on exhibition including chassis. Interviews at the stands reflected the fact that twenty-one more cars were expected to arrive at the show before it closes. A complete census of the cars on hand, with those expected, follows:

Hollander and Taugeman, New York—Fiat—Twenty-four to 30-horsepower limousine coupe, 24 to 30-horsepower touring car, 60-horsepower car with racing body. Expect a 24-horsepower swivel front, 16-horsepower coupe, 24-horsepower landaulet, 24-horsepower chassis, 1905 double phaeton.

Standard Automobile Co., New York—Deauville—Forty-horsepower racer for Ormond, 12 to 16-horsepower tonneau, 45 to 60-horsepower tonneau, 18 to 24-horsepower coupe, 45 to 60-horsepower with Quimby touring limousine. Expect 24 to 28-horsepower chassis, 24 to 28-horsepower touring, 30 to 35-horsepower chassis, 30 to 35-horsepower touring.

Smith and Mabley, New York—Panhard, Renault, Mercedes—Panhards, 24-horsepower chassis, 24-horsepower touring, seating six, 35-horsepower touring; Renaults, 14-horsepower touring with imperial body, 10-horsepower touring, 14 to 20-horsepower chassis, 20 to 30-horsepower chassis; Mercedes, 40 to 45-horsepower touring, 18 to 24-horsepower landaulet, 14 to 22-horsepower landaulet, 18 to 24-horsepower touring, 40 to 45-horsepower touring. Expect two 40 to 45-horsepower chassis.

American Peugeot Automobile Co., New York—Peugeot—Twenty-four-horsepower chassis, 24-horsepower touring with swivel front.

Charron, Girardot and Voight, Paris—Eighteen to 24-horsepower chassis, 18 to 24-horsepower landaulet, 25 to 30-horsepower touring, 25-horsepower coupe limousine.

F. A. La Roche Co., New York—Darracq—Thirty to 35-horsepower touring with top, 12-horsepower touring, 8-horsepower touring, 15-horsepower chassis. Expects two 15-horsepower touring with top, 30 to 35-horsepower touring.

E. B. Gallaher, New York—Richard-Brasier—Twenty-horsepower chassis, 20-horsepower touring, 30-horsepower touring. Expect 16-horsepower coupe limousine.

Emile Mors, Paris; L. J. Lillie, New York, agent—Mors—Twenty-four to 32-horsepower touring, 24 to 32-horsepower coupe limousine.

Central Automobile Co., New York—Napier—Twenty-four to 32-horsepower touring, 15 to 18-horsepower with canopy top. Expect 30-horsepower six-cylinder touring.

Sidney B. Bowman Automobile Co., New York—Bayard-Clement—Two 20-horsepower touring with top, 24-horsepower limousine. horsepower motor of Vanderbilt cup racer. Expect 45-horsepower touring, 30-horsepower touring with top, 24-horsepower limousine.

George W. Condon, New York—La Minerve—Twenty-five-horsepower touring.

Albert Stopford—Electromobile coupe.

L. J. Gaugler, New York—Delahaye—Thirty-horsepower touring with cape top.

F. A. Ferro, New York—Berliet—Twenty-horsepower touring.



Norris M. Mason, New York—Leon Bollee—Forty-horsepower chassis, 40-horsepower double phaeton.

Palmer and Christie, New York—Martini—Forty-horsepower chassis, 24-horsepower touring with top.

American Automobile Storage Co., New York—Franklin—Twenty-horsepower touring, 12-horsepower solid-back tonneau, 12-horsepower light roadster, 12-horsepower detachable tonneau, 10-horsepower transcontinental record holder.

Union Motor Supply Co., New York—Dietrich—thirty-five-horsepower palace car, 40-horsepower touring, 20-horsepower limousine.

J. S. Heller, New York—Pipe—Two 15 to 20-horsepower limousines.

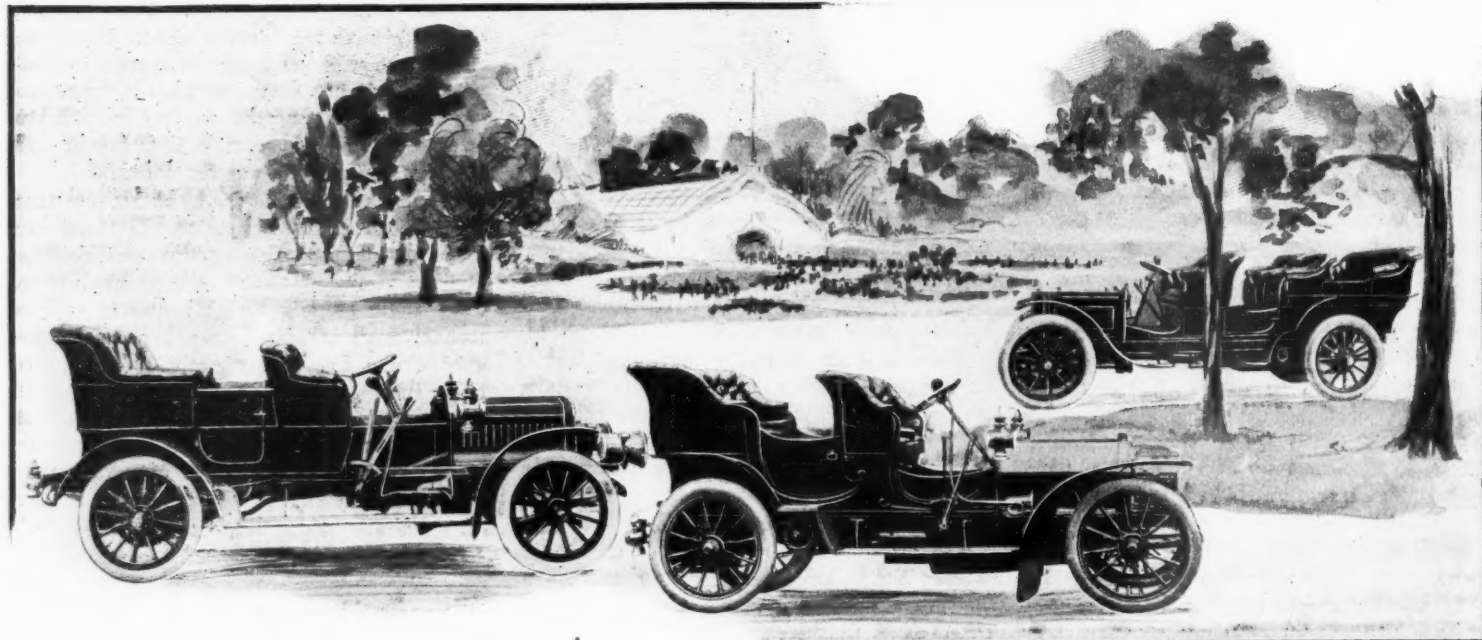
Auto Import Co., New York—Rochet-Schneider—Twenty-four to 35-horsepower touring cape top.

Henry Fournier, Paris—Hotchkiss—Thirty-two-horsepower chassis. Expect 40-horsepower double coupe limousine.

J. Rothschild and Sons, Paris—Mors—Twenty-four-horsepower touring with limousine top.

The following were the accessory exhibitors: Leon Rubay, accessories; Quimby & Co., automobile bodies; I. S. McGiehan, odometers; F. D. Winans, Michelin tires; Continental Caoutchouc Co., Continental tires; Minimax Co., fire extinguishers; International Supply Co., accessories; Francois Richard, carbureters; Klean-All Mfg. Co., Klean-All; W. C. Duane & Co., tourist automobile tops; R. H. Macy & Co., motor boat and automobile clothing; Sampson Leather Tire Co., Sampson tires; A. J. Meyers, Aster motors; J. S. Heller, tires; J. P. Colt & Co., acetylene lamps and generators; Republic Tire Co., non-skid tires; E. B. Gallaher, tires; L'Emporeu, tires.

CARS SCHEDULED FOR IMPORTERS' SHOW



THE DELAHAYE

THE FIAT

THE MORS

THE RICHARD-BRASIER

The Richard-Brasier is not greatly different from the models of last year, principal among the changes being a tendency toward greater strength in the construction. The line includes five models ranging from 8 to 19 horsepower. All models, with the exception of the smallest, are so designed that they may be fitted with side-entrance bodies. Hence the Richard-Brasier becomes a conventional large touring car instead of the comparatively light vehicle which it has previously been. The 40-horsepower machine has double side chain drive, whereas all of the other models have propeller shaft and bevel gear final drive. The frame is of pressed steel but, different from usual construction, is fitted with a tubular secondary frame whose object is to prevent the main frame from yielding to torsional strains. The frame is mounted upon long semi-elliptic springs, all of which are cushioned with Trufault suspension devices. The motor is not greatly different from previous Richard-Brasier motors, but is fitted with magneto ignition exclusively, the makers having sufficient confidence in this form of ignition to consider the use of batteries for emergency unnecessary. The ignition system

is provided with an automatic device whereby the spark lead is retarded when the motor is started and thereafter assumes its normal position, this provision being to avoid accidents due to premature ignition when the motor is being cranked. The carburetor, which has two inclined nozzles like an acetylene burner to allow the jets of gasoline to join and pulverize each other to form a column of carbureted air, is fitted with an extra air inlet, as well as a system for keeping the apparatus at a constant temperature. The water circulation is by the thermo-siphon system, with a combined radiator and tank. All of the main bearings of the car, with the exception of those of the crank shaft, are ball.

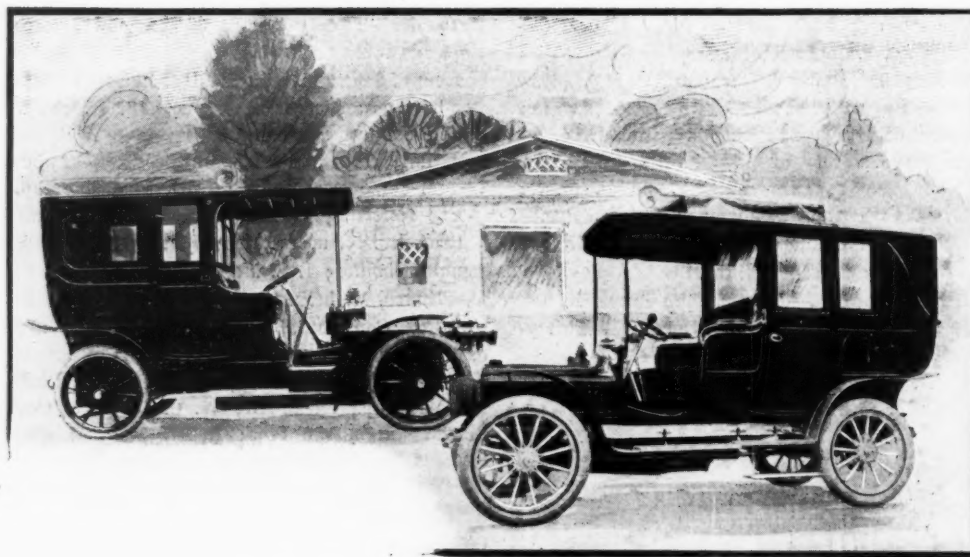
THE WESTINGHOUSE

The Westinghouse car was the novelty of the Paris show—not that it was radical in construction, but because it was the one car to be introduced at the show as a likely contestant for popular honors, just as was the Hotchkiss car last year. It would assume a similar position at Herald Square show, naturally a reflection of the French exhibition. The chassis of the Westinghouse car is equipped with a four-cylinder, 20-22-horsepower motor

said to develop 24 horsepower at 1,000 revolutions per minute. This is mounted on a conventional pressed steel frame. The cylinders are cast in two pairs. The valves are all mechanically operated from one cam shaft, the inlet valves being above the cylinders, and operated by tappets. The carburetor, magneto, and pump are all mounted on the engine. The magneto is of the high-tension type, and is gear driven. The governor is enclosed in the crank chamber and acts on a piston throttle regulating the admission of fuel to the engine. The carburetor is of the so-called automatic air-regulation style. The water circulation is maintained by a gear-driven pump and a cellular radiator. The clutch, which is a leather-faced cone is so arranged that it can be removed without interfering with the motor or transmission. The latter gives four speeds and a reverse, with direct drive on the high speed. The shafts in the gear box run on ball bearings. The final drive is by double side chains.

THE GOBRON-BRILLIE

Twenty-five and 35-horsepower models are the principal cars of the Gobron-Brillie line. In these machines the well known Gobron-Brillie motor, consisting of two cylinders in each of which there are two outwardly driven pistons with a central combustion chamber between them, is used. The valves are all mechanically operated and interchangeable, the inlets being on the opposite side to the exhaust. Both storage batteries and high-tension magneto are employed in the ignition system. The water circulation is maintained by a gear-driven pump. The radiator is tubular within a tank-frame. The carburetor consists of a float-feed chamber and float actuating the usual form of needle valve, admitting fuel to the jet. The fuel passes through a gauze filter upon arrival beneath the valve chamber, which is formed with a catch pit into the bottom of which impurities can sink. Another catch pit is beneath the jet. Air reaches the mixing chamber through gauze. Around the spray nozzle is placed a sliding mushroom valve, opposed to the narrow opening at the bottom of the mixing chamber and this valve is connected to the spindle of a throttle valve. The throttle valve is controlled



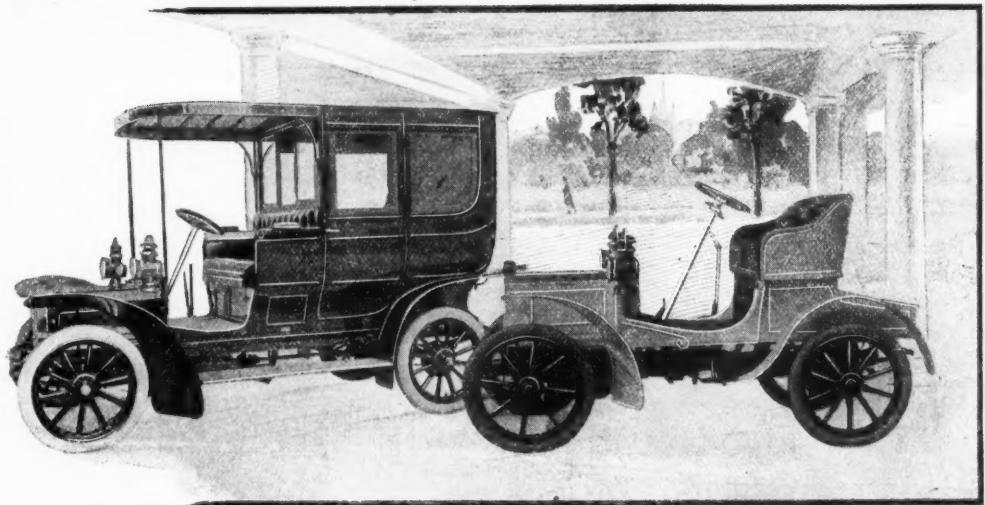
THE PIPE

THE RICHARD-BRASIER

by the engine governor, and the mushroom valve moves in such relation therewith as is permitted by the shape of the external cam. The shape, angle, and movement of the valve are so arranged that for every variation in the piston speed of the engine such suction is produced over the jet that delivery of gasoline is varied. The mixing chamber is provided with a jacket through which hot water is caused to circulate. The Gobron-Brillie clutch consists of two cone sets. The smaller one, which is metal-to-metal, engages first, followed by the engagement of the larger one, the cone of which is leather-faced. Both clutches are controlled by the same pedal. The advantage claimed is less shock in clutch engagement. Four speeds forward and a reverse are provided, with a direct drive to the cross countershaft on the high speed.

THE PANHARD

Panhard's, at least, are not fitted with pressed steel frames, a modification of the old armored-wood Panhard frame still being used, even on the new 50-horsepower model, which is the star member of the Panhard troupe. In this frame the flitch plate with which the wooden frame members are lined is of channel section, the flanges facing inwardly top and bottom. The four-cylinder motor has separate cast iron cylinders, with valve chambers on both sides and two cam shafts, mechanically operating all valves. All the cam shaft gear is enclosed in extensions of the crank chamber. The Eise-mann magneto is supplemented by storage batteries and a coil. A new feature is the method of automatically governing the speed of the engine. The usual centrifugal governor is replaced by a hydraulic arrangement working in conjunction with the water-circulating system, the increased pressure of water, due to increased engine speed, being utilized to control the throttle. The 50-horsepower car is fitted with a cellular radiator but tubular radiators are still used on the smaller models. The fly wheel arms are set propeller-wise for the creation of draught through the radiator and bonnet space, and a fan, belt driven from the motor shaft, is set behind the radiator. With the exception of the engine-shaft, ball bearings are fitted to all shafts. The clutch is of the multiple disk type, of the same pattern as that employed on



THE PEUGEOT

THE BABY PEUGEOT

the racing machines. A box on the motor shaft carries a number of flat plates alternating with similar plates on the driven shaft, and being bathed in oil, this arrangement gives a gradual clutching motion. The speed-change gear is of the sliding gear type, giving four speeds forward and a reverse, with a direct drive to the countershaft on the high speed. When the latter is in use, the secondary shaft inside the gear box remains stationary.

THE MORS

The straight-line body design which characterized the Mors last year still names it a Mors at a glance, although the use of a few restricted curves softens the lines somewhat and prevents an angular appearance. The different models range from 12 to 50 horsepower, and in most of them there are not a great many changes over the construction of last year. The principal changes are found in the 24-32 and the 40-50 horsepower models. In these the motors are characterized by the adoption of the eccentric disposition of the crank shaft, a system of design brought out some time ago to reduce the angularity of piston thrust, but never commonly adopted. The other changes are the use of a tubular radiator combined with a tank; the adoption of a universal joint between the clutch and the transmission gear; the mounting of the transmission gears on ball

bearings; the substitution of a gear water pump for the previously used centrifugal pump, and the mounting of the frame at the rear on platform springs. In other features, the car is of the typical European construction, with four-cylinder motor, magneto ignition, so-called automatic carburetor, sliding gear transmission, and double side chain final drive.

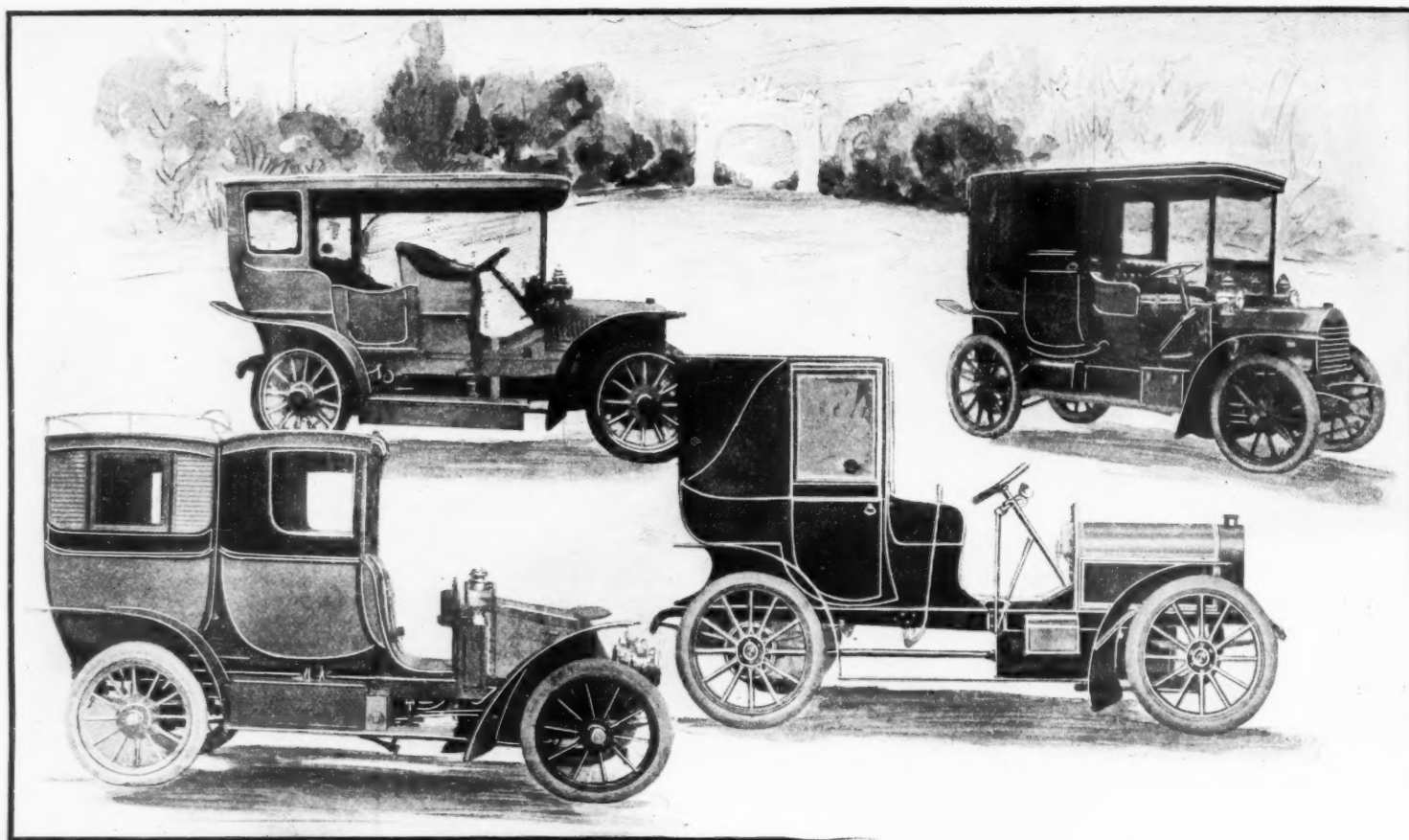
THE C. G. V.

Just as the Panhard sticks to its armored-wood frame, the C. G. V. still has the tubular frame with wood bars driven tightly through the tubes. The largest model of the line is a 60-horsepower machine. In all of the models the cylinders of the four-cylinder motors are cast separately. The engine is given a more compact form by grouping the oil and water pumps, carburetor, and magneto close to the cylinders. All the cars are now fitted with magnetos. The oil and water pumps are driven by the camshaft, which runs in an oil bath, and all the pinions of which are of fiber. The new carburetor is of the double jet type, in which a valve automatically closes the bigger jet and opens the smaller one when the engine is running at low speed. The carburetor is warmed with hot water. The fan behind the tubular radiator has been replaced by a steel ventilator on the fly wheel. In the clutch there is a layer of rubber underneath the leather facing to



THE DE DIETRICH

THE MERCEDES



THE DECAUVILLE
THE RENAULT

THE GOBRON-BRILLIE
THE ARGYLL

give a progressive action to the clutch. Ball bearings are employed everywhere, even on the cam shafts, there being fifty-four ball bearings in the car. The balls are separated by spiral springs which keep them in position in the races.

THE BOLLEE

The Leon Bollee cars are made in 20-24 and 40-45-horsepower models which are almost identical in chassis construction, with the exception of size and power. The cylinders of the four-cylinder motor are cast in pairs. The inlet valves are mechanically actuated, and are located on the opposite side to the exhaust valves. The pump is driven by gearing from the shaft, as is also the magneto. The fan fitted behind the cellular radiator is driven by a broad belt, the fan spindle being carried upon a rocking plate, sustained by an adjustable spring, so that the belt is kept at constant tension. Both magneto and batteries are used in the ignition system. The carbureter consists of two distinct spraying chambers. Up to a speed of about 30 miles per hour the mixture is supplied from the smaller jet. As the speed, and consequently the suction, of the engine increases the larger jet is brought automatically into action and the smaller one closed. The clutch is of the ordinary cone type, but the internal portion is mounted upon its shaft on a spherical joint, so that it is capable of fitting accurately into the outer member, even if the shafts carrying the two members are not perfectly in line with each other. The clutch pedal is so connected with the throttle that as the clutch is withdrawn the speed of the engine is automatically lowered. A flexible coupling is fitted between the clutch and the transmission gear. The latter, like the engine, is supported at three points. Four speeds forward and reverse are provided, these being arranged in such a way that it is possible to change directly from the lowest to the highest. All the lubricators

are named, and arrangement is made so that oil fed to any bearing may be regulated independently. The steering gear, transmission and road wheels run on ball bearings.

THE ROCHET-SCHNEIDER

The Rochet-Schneider is made for 1905 in two models, one with a 24-30 and the other with a 35-40-horsepower motor. The chassis of these models are similar with the exception of the motors, that of the smaller car having the cylinders cast in pairs, while that of the larger one has them cast and mounted separately. The inlet valves are mechanically operated and are interchangeable with the exhaust valve. A device is now fitted whereby on placing the starting handle in position, the compression is automatically released. The low-tension system of magneto ignition is still retained, a device being provided whereby the ignition of each cylinder may be tested separately. The water is circulated by a gear-driven pump through a cellular radiator with fan. The latter runs on ball bearings, and is driven by an adjustable belt. All the gear wheels, including those operating the pump and magneto, are enclosed. The mixture is furnished by a conventional automatic carbureter. The clutch is of the metal-to-metal type, arranged to give a gradual engagement. The speed change gear has been modified so that the two shafts are in the same horizontal plane. Four speeds forward and a reverse, with direct drive on the high speed, are provided, the transmission from the differential countershaft being by side chains. In addition to the usual hand-operated internal expanding brakes connected with the hubs of the rear wheels, two pedal-operated brakes are mounted on the countershaft.

THE PIPE

The 18-28-horsepower model of the Pipe will probably be the most prominent model during 1905. It has the usual long wheel base, pressed steel frame and four-cylinder motor with the

cylinders cast in pairs. The valve chambers are on opposite sides of the cylinders and arranged at an angle of 45 degrees to vertical. Both the exhaust and inlet valves are operated by rocking levers from above; the exhaust valve being inverted, contrary to usual practice. The carbureter is of the automatic, self-regulating type, in conjunction with a throttle, which is normally closed and only opened by the action of a foot accelerator. This throttle is also coupled to the clutch pedal so that the action of withdrawing the clutch closes the throttle and prevents the engine from racing. Simms-Bosch high-tension ignition is fitted. The radiator, which is combined with the water tank, is composed of horizontal tubes, and is supplemented by a fly wheel fan. The new clutch is very similar to the Mercedes, but the Jenatzy magnetic clutch is fitted if desired. An ordinary sliding gear has been retained, with the shafts on the same plane, all running on ball bearings, the balls being separated by small coil springs containing plugs of porous material which contains lubricating oil.

THE DECAUVILLE

As last year, the Decauville is characterized by a pressed steel frame with an integral apron into which is set an one-piece bed plate that carries both the engine and the transmission. The machine in general is not greatly changed. One of the principal alterations is in the carbureter. This has the usual float feed connected with a mixing chamber. The valve in the passage between the two is set permanently to regulate the quantity of gasoline. Air is admitted through a screen near the bottom of the mixing chamber, and above the air inlet is a conical chamber in which is loosely seated a long inverted cone with serrated surface. This cone is movable vertically by the regulation of its stem, which is provided with a thumb-nut. Upon the suction of the motor air and gasoline are drawn with equal force up-

ward between the cone and its enclosing chamber, the gasoline being pulverized by striking the serrated surface of the cone, and the quality remaining constant. Vertical movement of the cone changes the distance between it and the conical chamber around it, and hence gauges the total amount of mixture drawn to the engine, but does not affect the quality.

THE MARTINI

Like many of the prominent European cars, the Martini is not greatly different in style of construction from the models of 1904. The two new models of the line are 20-24 and 30-40-horsepower machines. Conveniences are the most noticeable additions. For instance, there is a lever within easy reach of the driver which permits shutting off the fuel supply in such cases as coasting down a long hill, while the transmission gear is so arranged that in case one of the side chains breaks and it is not possible to make a roadside repair, the sections of the countershaft may be locked and the car driven home on one chain. The carburetor has been modified to provide the so-called automatic mixture regulation and its mixing chamber is water jacketed that a uniform temperature may be maintained. Gasoline is fed to the carburetor from the tank under pressure, this pressure being obtained from a plunger pump driven from the fly wheel. There are numerous other small changes, such as the use of the four-notch quadrant for the speed change lever instead of the ratchet quadrant previously used. In general construction the car is conventional. One of the larger Martini chassis will, if desired, be fitted with a landaulette body whose interior seats are so arranged that they may be converted into a couch.

THE MERCEDES

The 70-horsepower Mercedes is the one which is the most different from previous models, being the first of the 1905 Mercedes line to be brought out. The motor has its two pairs of cylinders set very widely apart, about 4 inches separating them and allowing room for a long central bearing. The mechanically operated valves are placed on opposite sides of the head, the exhaust valves being on the left and the inlet on the right. There are only two cam shafts, as the shaft operating the inlet valves also carries cams actuating the tappet rods for the magneto ignition. This arrangement also brings the carburetor closer to the valves and admits the use of a short inlet pipe to the valve chambers.

The throttle valve is controlled by the lever on the steering wheel, but there is a foot accelerator also. The previous system of water cooling is retained excepting that the inlet opening of the water jackets is at the bottom of and the outlet above the cylinders. A very curious feature is to be found in the provision of a safety valve in the top of the water jacket surrounding each cylinder. The

transmission gear is contained in the usual aluminum box, but instead of the differential gear being contained in the same casting it is now carried with its bearings in an entirely separate gear-box, which is rigidly attached to the other by means of an aluminum sleeve. This has a flange at either end, by means of which it is bolted on to, and forms the connecting piece between, the gear-box proper and the differential gear, the driving shaft of the gear being, of course, prolonged to pass through this and carry the bevel driving pinion on its end. This arrangement allows short chains on a long chassis without a long clutch shaft. There are four brakes, two expanding brakes acting directly on the rear wheels, one operating on the differential countershaft, and one on the driving shaft of the gear. Both the latter encircle hollow drums, and the act of putting on these brakes opens a cock which allows water to flow into them for cooling purposes. There is a ratchet and pawl arrangement on the countershaft, which prevents the car from running backward, should the driver accidentally stop his engine or miss the speeds when changing gear on a steep hill. The act of putting in the reverse also automatically lifts the pawl, so that it cannot accidentally fall on to the ratchet when it is not intended to do so. One of the novelties on the 40-horsepower Mercedes is an air brake system, comprising an air compressor driven by the motor, a reservoir, plungers with brake shoes to engage drums and a throttle on the steering wheel post.

THE RENAULT

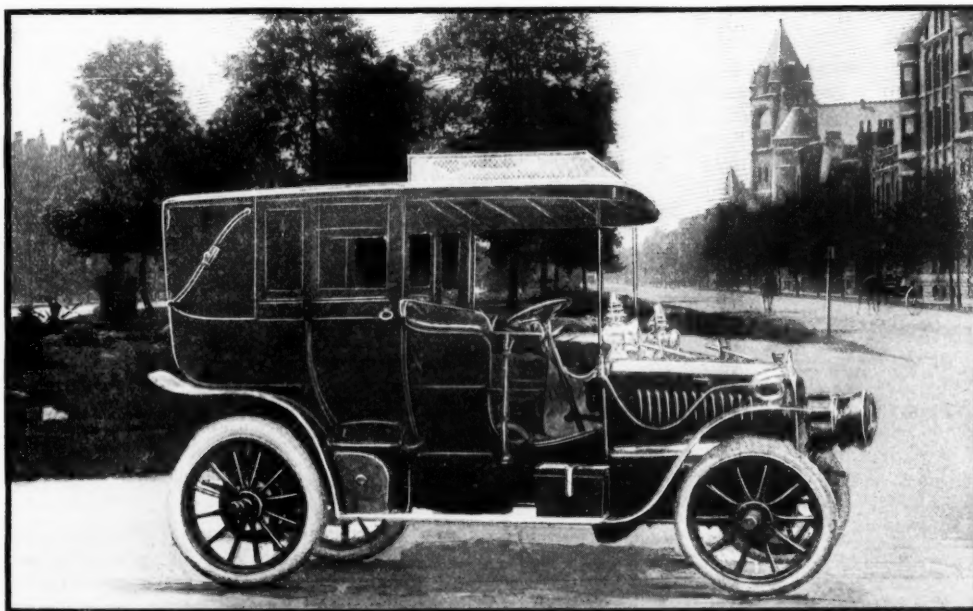
The Renault for 1905 is made in four models, ranging from 8 to 30-horsepower, the two smaller models being equipped with two-cylinder and the others with four-cylinder motors with the cylinders cast in pairs. In many respects the cars differ materially from the models of last year. For instance the radiator, instead of being divided into banks of tubes placed on either side of the motor bonnet, or in some radical form like the big circular radiator on the Renault racer of last season, is a combined tank and radiator placed directly ahead of the dash board. The circulation is by the thermo-syphon system. The periphery of the fly wheel is fitted with oblique vanes to induce an air draught past the motor and force it upon the radiator. The female portion of

the clutch is slotted and longitudinally tongued to afford what may be called an elastic "bite." There is a spherical universal joint between the clutch and the transmission gear and at each end of the propeller shaft. The cam shaft of the motor is provided with variable lift cams, which allow the regulation from the wheel of the lift of the inlet valves. The throttle valve itself is controlled by a governor. The carburetor has an automatic air inlet which comprises a movable piston that opens ports of different area under different degrees of suction. The ignition is by a magneto high-tension system. The rear springs are of the platform variety. The familiar Renault tubular frame is replaced by a conventional pressed steel frame.

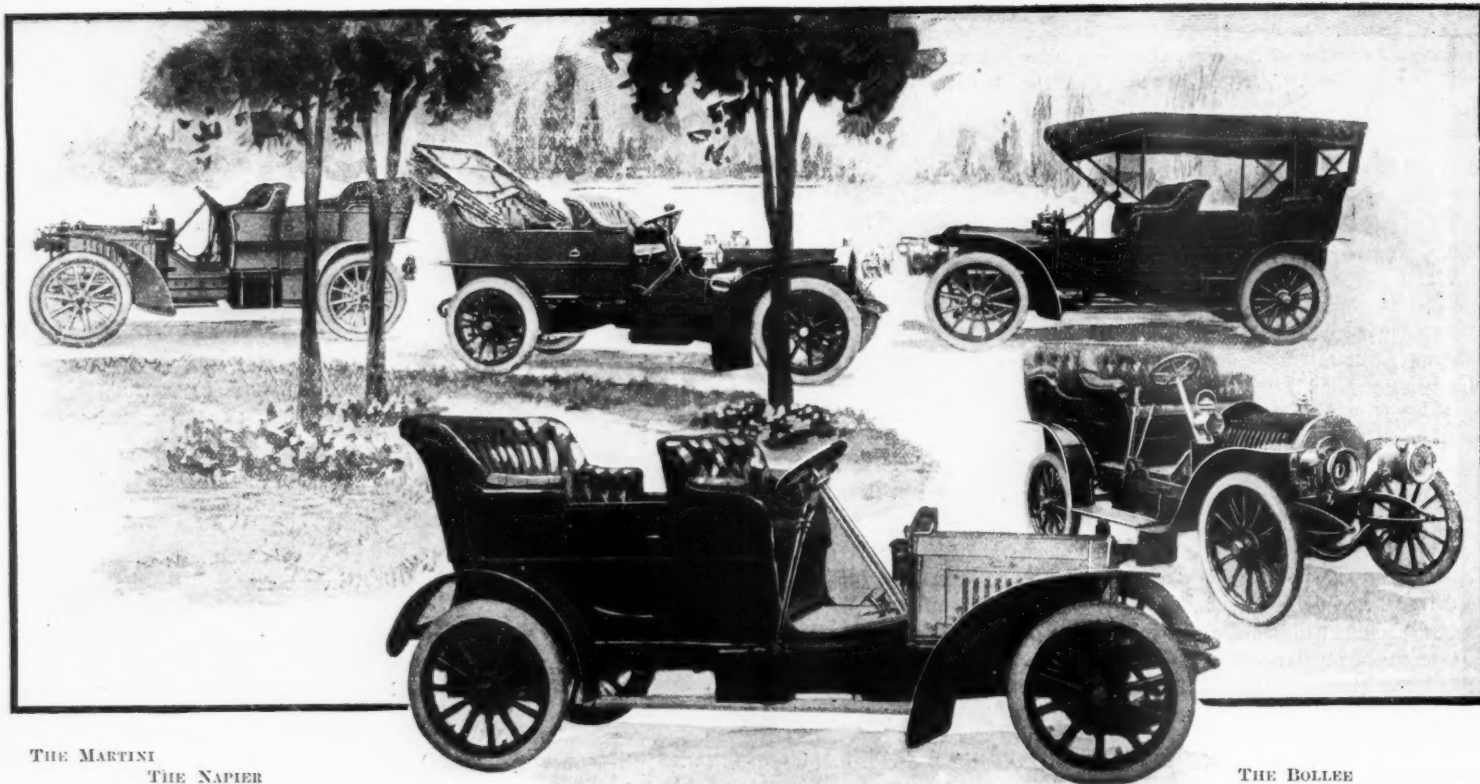
THE DARRACQ

The Darracqs are made in several sizes ranging from 8 to 30-horsepower. The 8-horsepower car is a good example of modern small car building in which the lines and general system of construction of a large car are adapted to a light, single-cylinder machine. The frame is of pressed steel, and the one-cylinder motor has mechanically operated valves. The ignition is placed at the front, so that it is accessible. The cooling system contains pump, cellular radiator and fan. There are three speeds, the highest being a direct drive. The final drive is, of course, of the regular Darracq propeller shaft system. The speed-change gear and the differential are both mounted on ball bearings, as are also the wheels. There are two brakes on the rear wheels operated by a hand lever, and there is another brake on the transmission operated by a pedal. The larger models of the Darracq are, in the main, similar to those of last year. All have the peculiarly Darracq frame in which the side bars, cross bars and an apron extending under the motor and transmission gear are integral. The cylinders of the four-cylinder motor are cast in pairs with the water jackets integral. All of the valves are mechanically operated, and are all on the left side of the motor, being operated from one cam shaft. The spark plugs are placed in the cylinder heads above the inlet valves. The motor is lubricated from the crank chamber by the splash system and is assisted by cups and oil ways in the crank chamber. The initial oil feed is by pressure from the exhaust. The

water circulation system includes a cellular radiator, belt-driven fan and a gear-driven pump. The fuel supply is drawn through the carburetor from an auxiliary tank under the motor bonnet, just ahead of the dash-board, this being provided to prevent inoperation of the gravity feed from the main tank of the carburetor in case of steep hill climbing. The clutch is of the usual leather faced cone type, and is provided with four semi-circular springs in the male member in order to permit a smooth engagement



THE PANHARD



THE MARTINI

THE NAPIER
THE DARRACQTHE BOLLEE
THE HOTCHKISS

of the clutch. The transmission is through a simple form of sliding gears with direct drive on the high speed. The final drive is through a telescopic propeller shaft provided with a universal joint at each end. The rear axle structure is the same as last year, including the tubular radius rod extending from the differential gear case forward. There is an internal expanding brake on the transmission and on both of the rear wheels. The wheel base is more than ordinarily long to receive comfortable side entrance bodies.

THE BERLIET

The Berliet is of approved chassis construction with pressed steel frame, ball bearing axles and shafts, and four-cylinder motor with cylinders cast in pairs. The valves are mechanically operated, the exhausts being on one side and the inlets on the other side of the motor. The unusual feature is the equipment of the exhaust valves with lifters so that they may be raised to relieve the compression in starting the motor. The carburetor is automatic, and has a throttle which may be operated either by a hand lever above the steering wheel or by a foot accelerator. The ignition is Simms-Bosch low-tension. A gear-driven centrifugal pump provides the water circulation, and a honeycomb radiator is assisted in its action by a belt-driven fan and also by a fan-armed fly wheel. Fuel is fed to the carburetor under pressure. The lubricator, which is driven by a belt, can be recharged automatically from a supplementary oil tank, also under pressure. The clutch consists of a bronze shell, contained on the crank shaft of the motor, and an expanding steel segment attached to the gear shaft. This segment normally contracts itself to somewhat less than the outside diameter of the shell, and is expanded by means of a wedge which is formed into it by the clutch spring. The whole runs in oil. A Mercedes type of transmission gear is used, but the direct drive on high speed has been dropped. The outside ends of the differential shaft are each forged with a flange, and part of the face of this flange is then formed to

leave three equidistant teeth. Corresponding recesses are formed on the inner face of the boss of the sprocket pinion, and the two are held in position by set screws, or studs. This system admits of a light construction and obviates keys or bolts.

THE BAYARD-CLEMENT

Bayard-Clement cars range from 7 to 35-horsepower. The 35-horsepower car with double phaeton body is the most impressive of the line. The motor has its inlet and exhaust valves interchangeable, mechanically operated and placed on opposite sides of the cylinders. The ignition is by a high-tension magneto system. The carburetor is automatic and with balanced valve for the admission of supplementary air. The clutch is of the cone type, and can easily be taken to pieces in order to change the leather. In the gear box there are two sets of sliding gears, which produce the four speeds and the reverse motion. The two-cylinder 7-horsepower engine has double ignition, the contact breaker rotating on the end of the cam shaft, which also drives the high-tension magneto. All the gearing is enclosed. On the higher powered cars the magneto alone is fitted, and the valve gearing actuates at the same time the magneto and the pump. Different forms of steel frames are employed for various powers, the small car being built with a channel steel frame, and the big vehicles with a pressed steel frame with apron and side and end members pressed out of one piece.

THE ARGYLL

The Argyll is Scotch and not ashamed of it, its general likeness to continental cars being tempered with several peculiarities. These are evident on the principal model, a 20-24-horsepower four-cylinder car. The wheels are built to secure lateral strength, the spokes being staggered in the vertical plane, alternate spokes passing to the right and left sides of the iron hub. The joints between the spokes are so arranged that should the wheel at any time become loose through the wood shrinking, it can be tightened by drawing together the hub flanges by means of the bolts holding

the hub together. The metal-to-leather clutch has been abandoned in the three and four-cylinder cars, and the Hele-Shaw metal-to-metal clutch adopted. This clutch is encased in the fly wheel and runs in an oil-bath. It consists of a series of disks of steel. The alternate disks are notched along the outer and inner circumferences. One set of disks engage with all projections within the fly wheel, while the alternate set mesh with ribs or keys on a boss on the gear shaft. The plates are kept in contact by a coil spring. The action of the pedal in disengaging the clutch is to overcome the pressure of this spring, and allow a set of small springs between the steel disks to free the plates from each other. The universal joint for the driving shaft consists of two steel sleeves, one keyed to the driving and the other to the driven shaft; each sleeve ends in a double prong, the edges of which take the form of epicycloidal teeth, the teeth being parallel to the axis of the shaft. When meshed together these teeth form a hollow sphere. Inside this is placed a ball to keep the teeth in their proper relative positions, and the whole is covered by a dust cap.

THE HOTCHKISS

The Hotchkiss car is made in two patterns, of 17 and 30 horsepower; although they are claimed to develop 28 and 42 horsepower respectively. The frame is of pressed steel. The motor comprises four vertical cylinders, cast in pairs, both the inlet and exhaust valves being mechanically operated and interchangeable. The crank shaft runs on ball bearings. The ignition is by a low-tension magneto system. The radiator is of the honeycomb type, of a circular shape, with flues of triangular section. The fan, inducing a current of air through the radiator, is made in such a way that the inclination of the blades can be varied from the driver's seat, and the air draught increased as, for instance, in climbing long hills. The clutch is of the leather faced type, and is provided with a locking device which prevents tendency to slip. A special joint is introduced in the shaft between the clutch and the transmission

gear. Four speeds forward and a reverse are provided, the high speed being direct to the rear live axle through a propeller shaft and bevel gears.

THE DELAHAYE

The 25-30-horsepower model is the chief Delahaye. The motor of this is cast in four separate cylinders, and has high-tension ignition with accumulators, and also a Simms-Bosch high-tension magneto. Among other new features are, water-cooled exhaust, large pedals, ball bearings everywhere, and mechanically operated inlet valves. All the 1905 cars, also, have the Mercedes double-shaft speed-change gear, whereas previously this was fitted to the 24-horsepower pattern only. The pressed steel frame of the 25-horsepower car is of much stronger construction to provide for increased strains caused by lengthening the frame to receive a side-entrance body. An interesting Delahaye is an 8-horsepower landaulette. It is intended for city use and is fitted with a two-cylinder motor and a comfortable and well finished body.

THE DE DIETRICH

De Dietrichs for 1905 are made in models from 16 to 60 horsepower. The wheel base of all the cars has been increased for the fitting of side-entrance bodies. The motor itself is of a new model. It is fitted with a carbureter with a finely graduated throttle to enable the motor to be set to run at any speed. The throttle is operated by a lever arranged on the steering wheel, a second lever controlling the ignition. An accelerator is also arranged for easy and quick acceleration in traffic driving and starting up-hill. A device whereby, when the throttle lever is opened wide, the action of drawing out the clutch immediately throttles the engine, is another improvement. On the 40-horsepower chassis a half-compression lever is provided for easy starting. The gasoline tank is now of a flat shape and is placed at the rear of the frame, and can easily be filled without disturbing any of the passengers. The speed-change gear box is of a new pattern, and cardan joints are provided on the differential shaft to obviate strain being trans-

mitted to the gear bearings, and for the same purpose a cardan joint is arranged between the gear and the clutch. Another change is the fitting of ball bearings to the gear shafts and the road wheels. The side brakes are of a much lighter design than formerly. They are internal expanding, and enclosed from dirt and mud. A compensating arrangement is fitted whereby equal tension is put upon the brakes on both the road wheels.

THE NAPIER

The pride of the Napier line is the 30-horsepower, six-cylinder machine. This has a power plant similar, except in size, to the six-cylinder racer which the Napier company is developing. In general form the car is a comfortable, well-designed, modern side-entrance machine with a long wheel base allowing plenty of room for the passengers, and with the conventional pressed steel frame. The body is of aluminum. The motor is equipped with the regular Napier hydraulic mixture regulator, which operates in conjunction with the manually controllable throttle actuated by a hand lever on the steering wheel. The ignition is of the high-tension system with a single coil for the six cylinders, and it is said that especial attention has been paid to the synchronization of the firing in the six cylinders to produce an effect of continuous impulse that will allow great flexibility of motor speed. The transmission is through the approved sliding gear, and the final drive in some models is by double side chains, while in others propeller shaft drive is fitted.

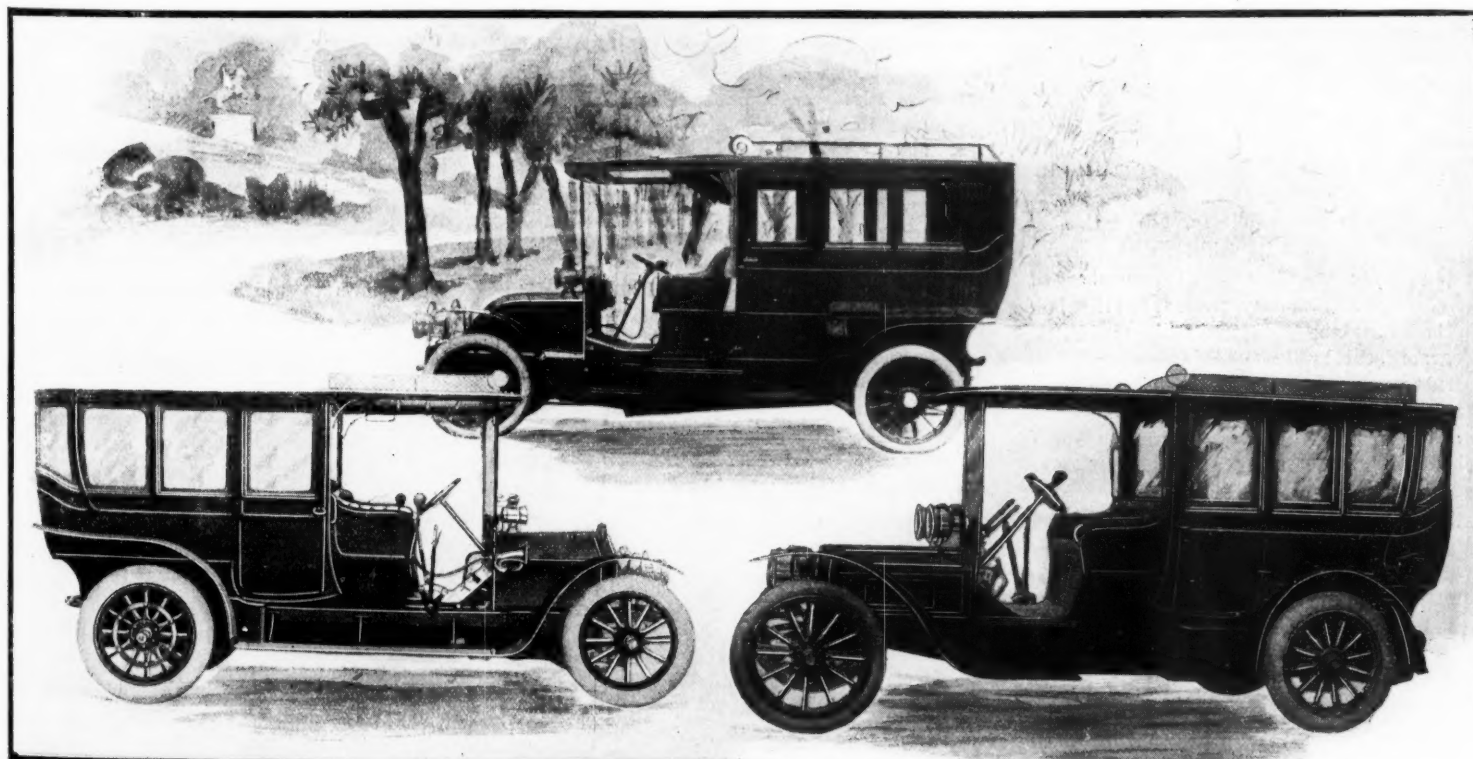
THE FIAT

The Fiat for this year is not greatly different from the 1904 models. Among the detail changes is an automatic lubricator in which a small chain carries oil from a tank to a distributing channel from which the pipe leads extend. There are three distinct sets of brakes—one on the transmission gear main shaft, one on the counter shaft and a double set on the rear hubs. The two former brakes are of the type in which two segments are drawn together on a drum, but the actuating mechanism is different in the two. In the brake on the transmission gear shaft the free ends

of the brake segments are drawn together by means of a shaft with oppositely threaded worms passing through correspondingly threaded lugs secured to the ends of the segments. In the brake on the counter shaft a lever and link arrangement is used for drawing the segments together. The gasoline feed to the carbureter is provided with a warm air jacket, a small lever on the steering post allowing the operator to control the air circulation. Low tension magneto ignition is used. The spark lead is automatically controlled.

THE PEUGEOT

Peugots for 1905 range from the 6-horsepower Baby Peugeot to a 40-horsepower chassis built on modern lines and adapted to any of the stylish bodies. The Baby Peugeot is the Lord Fauntleroy of European cars. It has a tubular frame and is driven by a single cylinder vertical engine with mechanical valves. The valve chambers open on opposite sides of the cylinder, but both being on one end of the motor are operated from a single cam shaft by a double set of rocking levers. The clutch pedal is so connected with the throttle valve that when the clutch is withdrawn the speed of the engine is automatically decreased. The water circulation is maintained by a friction-driven pump in conjunction with a honeycomb radiator with fan. Three speeds forward and a reverse are provided, the high speed being direct. The frames of the larger four-cylinder cars are of pressed steel. The motors have the cylinders cast in pairs, and all the valves are mechanically operated, the inlets being on one side and the exhausts on the other. Magneto ignition is fitted. The largest motor has also the high-tension system by coil and storage batteries as a reserve. In the new carbureter, the air admission is not only automatically regulated but also the feed of gasoline through the spraying nozzle. To facilitate the starting of the motor a compression relief lever is fitted close to the starting handle. The water circulation is maintained through a honeycomb radiator with adjustable belt-driven fan by a gear-driven pump. The speed-change gear is adapted to give four speeds and a reverse.



THE WESTINGHOUSE

THE C. G. V.

THE ROCHET-SCHNEIDER

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MEMBER NATIONAL ASSOCIATION OF AUTOMOBILE MANUFACTURERS	OFFICIAL ORGA- N OF THE AMERICAN MOTOR LEAGUE	MEMBER CHICAGO TRADE PRESS ASSOCIATION			

promptly declined to accept dictation as to the disposition of his trophy, and instructed Morgan to proceed on the lines originally laid down. The course of the Florida association, since its new president obtained a clear understanding of the condition of affairs, has been considerably changed, and the indications are that methods which would unquestionably have resulted in the disruption of the Florida association are at an end. This fortunate condition will probably result in a continuance of the Ormond tournaments under the present auspices, instead of under those of a new organization, which would unquestionably have been formed had the old method continued.

The course of the A. A. A. will be watched with interest during the next few months. It is known that the chairman of the racing board will decline to continue in office after the annual meeting. It is said, and generally believed, that the actions of the president have not been altogether acceptable to the board of directors, that there was considerable opposition to his renomination and that he is expected to pursue a different policy. It is known that at least one other officer is not altogether acceptable, and that he is regarded by many as responsible for some of the actions which have brought disfavor upon the organization. A new policy will be necessary if the American Automobile Association is to be, in fact, as well as in theory, the ruling body of automobilism.

Morgan's little tilt with it may knock at least some of the conceit out of a certain A. A. A. faction.

The trade press has been requested to give publicity to the details of the arrangements for reduced railway fares to New York and Chicago, on the occasions of the annual shows and Motor AGE believes that a careful reading of the information on another page will be of value to its readers.

The American Motor League and the American Automobile Association both hold conventions during the New York show, and the American Motor League has also been granted a rate for a convention at the same time as the Chicago show. The officers of these bodies will sign only those certificates which are held by members. Visitors from a distance, therefore, should ask the railroad agent at their respective starting points, for certificates on account of the conventions and not on account of the shows to which there are no reduced rates.

A circular issued late last week from the headquarters of the N. A. A. M. indicates the possibility of a spirited contest over the election of new members of the executive committee. Five of the fifteen members retire each year. Of those retiring this month four represent licensed makers and one an unlicensed maker. The first list of nominations contained a list of six names, of which one only was that of a representative of an unlicensed manufacturer. The new list contains four additional names, licensed and unlicensed representatives being equally represented. The membership of the organization is about equally divided, and victory will probably rest with that side which displays the greater energy. It will be the first occasion on which a test of strength between licensed and unlicensed manufacturers has been made.

THE TAMING OF THE SHREWS

Between 2 and 3 years ago, Senator Morgan, then little known in the automobile trade, visiting Florida in search of a new store of energy, discovered Ormond beach. He discovered, also, people who were willing to help bear the expense of the promotion of a tournament and, as a result, secured three or four competitors, just enough to demonstrate the possibilities of the beach.

Last season the number of contestants increased more than ten-fold, and Ormond obtained world-wide reputation by reason of the records made there.

To assist in the promotion of these events Morgan organized a club, whose members were supposed to assist in the local management. The club grew until, about the middle of the summer, it was able to establish its own clubhouse on the beach at Daytona, which is about 6 miles south of Ormond.

Morgan was responsible for all of this, and those who attended the hill-climbing contest in the White mountains, will remember that there was conspicuously posted on the bulletin board at the Mount Washington hotel a telegram, sent by President Burgoyne, of the Florida association, to Morgan, announcing that they had that day opened the clubhouse, and adding: "We fully acknowledge our indebtedness to you in making us what we are, and the club sends you greeting."

Unfortunately, there is local feeling at Daytona against Ormond. It was suggested from time to time, that Ormond obtained too much publicity and Daytona too little, which, if true, is not to be wondered at in view of the fact that practically all of the support came from the upper end of the beach.

When Morgan started work on the tournament which is to take place this month, he was advised that the association could not pay any part of the expense. In this emergency he went to friends at Ormond who agreed, as

individuals, to pay the whole amount. Morgan's next step was to secure about \$7,500 worth of prizes from gentlemen interested in the sport, including a challenge trophy from Sir Thomas Dewar.

At about this stage of the proceedings certain ill-advised officers of the American Automobile Association determined to secure the glory resulting from Morgan's efforts. The announcement had been made that entries for the races would be by invitation, which notice, although issued after the adoption of a resolution to that effect by the Florida association, was used by persons with whom Morgan was at enmity, as a pretext to abuse him. During his absence from New York, these persons, assisted by the aforesaid officers of the American Automobile Association, approached the president of the Florida association who, weakly yielding to their representations, authorized the announcement that the invitation feature had been withdrawn, without as much as advising Morgan of his action.

All this was followed by an attempt to so circumscribe Morgan's actions in connection with the tournament, as to make him a mere figurehead and practically the servant of the A. A. A.

Having secured a challenge trophy, as a gift from Sir Thomas Dewar to American automobilism, it was Morgan's intention to form a board of trustees, comprised of representatives of the American Automobile Association, Automobile Club of America, American Motor League, New York Motor Club, National Association of Automobile Manufacturers and two other persons. The board met and formulated rules, but next day the representatives of the two organizations first named were instructed to withdraw, and Sir Thomas Dewar's representative was approached and induced to agree to turn the cup over to the American Automobile Association.

There were many who quietly expressed disapproval and among them were some of the members of the Florida association, whose president shortly resigned his office.

The turn of the tide came with the arrival in this country of Sir Thomas Dewar, who



WHAT THE TOURING MOTORIST MEETS WITH NEAR MELBOURNE, AUSTRALIA.

Jump Sparks

Madison Square, Herald Square, Broadway—the shows are on.

Eddie Bald thinks he has a chance in the Bennett race in June. That's one good thing about a race—everybody has a chance.

If the automobile incorporation crop keeps on increasing the government will have to start a new department—on incorporations.

There is a new organization in Paris known as the League des Chauffeurs. The best part of this affair is that the name sounds good to those who don't know much about it.

Some of the Americans who visited the French automobile show attended the Moulin Rouge automobile night. It is now up to the French visitors at the New York show to attend the Haymarket any old night.

French automobile mechanics receive at an average \$1.47 a day for their labor. With the prevailing French prices for automobiles and the prices paid for labor, it is no wonder the foreign companies can build good machines.

French, Danish, Belgian, German, English, Austrian and a few other motor cyclists have formed an international body. If there was any good, hot debating going on at the inaugural meeting one may be assured of the international aspect of the affair.

Five years ago one of the attractions at the first automobile show in New York was the running of a little steamer up a steep incline from the roof to the tower of Madison Square garden. This would be a good stunt for a 3,000-pound, 60-horsepower limousine to repeat.

Hetty Green's son, the Texas railroad man and automobile enthusiast, is going to the New York show to inspect all that is in sight and incidentally invest in a few more racing cars. Incidentally, too, Edward better keep away from Mamma Green or perhaps there will be no buying going on.

Hurrah for a governor who says he is for something and then comes out when he is elected and says it again. This gives one the impression that he means it. Anyway, Governor Deneen of Illinois dug up so many cold facts about good and bad roads that one believes he is in earnest. Pretty soon Ike Potter will have his laurels shorn.

The automobile police of St. Louis are certainly the real thing. They were looking for a stolen Olds last week, and came across a touring car with "Oldsmobile" painted on it, so they immediately took it in tow and hauled it over to the house of the man who had lost his car. It happened that the police of another district had returned the latter earlier in the day. In the meantime the owner of the touring car telephoned the police his car had been stolen. As the police couldn't find any others implicated they arrested each other.

A man that can get the mile track record and nail it down is certainly all right.

The Panhard is now licensed under the Selden patent, and hence it will no longer be heresy to own and operate a Panhard.

There is comfort in the fact that even if one cannot buy a French automobile at the importers' show he can make goo-goo eyes at the Geisha girls.

Next week Madison Square garden will ring with the praises of the A. A. A. and A. M. L. officials who will not sign reduced railway fare certificates for non-members.

An Iowa local paper says: "Fred Nott is teaching his automobile to keep in the middle of the road." If Fred would teach it to keep on the right side of the road he would be surer of safety.

Americans who visited the Paris show wrote home that they did not find much novelty in the exhibition. Frenchmen who visit the New York show are liable to send a far different story to their loved ones.

THE WEEK

Chauffeurs' League in Paris an early success.

Automobile thieves in St. Louis destroy cars.

Bay State automobilists organize a state association.

International Motor Cyclists' Association formed in Paris.

Foreign fields reported exceedingly good for American trade.

Racing cars reaching Daytona, Fla., for annual beach tournament.

A. R. Pardington declines to serve as referee at Ormond tournament.

Bald believes he has a good chance to win the 1905 Bennett race.

French makers considering holding the annual show as early as October.

Reports give some idea of the growth of the French automobile industry.

Fast mile of Oldfield in record trials on coast probably gives him the mile track record.

Bowden declines to serve as chairman of the A. A. A. racing board and suggests W. C. Temple.

The Automobile Club of America empowers board of governors to bond club for half-million dollar club house fund.

Madison Square garden, New York, in the hands of the decorators, preparatory to arranging it for the forthcoming show.

Governor Deneen of Illinois in his first message comes out strong for state aid and convict labor for betterment of state roads.

The arrival of Sir Thomas Dewar in New York stops threatened abduction of Dewar cup by the A. A. A. and Senator Morgan's trustee plan is adopted.

Importers' salon in Herald Square Exhibition hall, New York, inaugurated with private opening that is a brilliant combination of social and mural decoration, music, oratory and Geisha girl tea.



"If you don't build a side entrance, you don't build automobiles," is likely to be the verdict of the show visitors.

It is rumored that Father Time will spend the winter in the north, having had so many falls taken out of him last season that he is afraid to go near Ormond this year.

New York bookmakers propose taking bets at good prices on all contestants in the Ormond tournament in Florida. This is where the bookies learn the automobile game quickly.

The Ceylon Automobile Club proposes a whiskey bottle as the international standard for a measure of gasoline. On this basis a man could make money buying gasoline in Kentucky and selling it in Kansas.

There is nothing so surprising in modern architecture as the actual meaning of the words exhibition hall, balcony extension, first and second tier boxes and concert hall, as applied to Madison Square garden.

The British manufacturers want to hold their annual show before the Paris exhibition to keep the English public from spending all its money in French rigs. As an advertisement of international commercial strength this is certainly the limit.

Here's a pretty how-de-doo. A minister down in Indiana wants automobilists taxed \$500 for licenses, speed put at 5 miles an hour, and to have cars inspected by a county inspector about once a month. What a nice pot for somebody. But where does the dominie come in?

L'Auto has offered a prize of \$20,000 to the manufacturer of the car that wins the international race to be held in France next year under the auspices of the Automobile Club of France. There may be makers who will be inclined to think that they would rather win this race than the Bennett cup.

Frenchmen object to the rules of the Bennett cup race because, by restricting the number of entrants from one country to three, the Mercedes company secures representation by three German cars, three Austrian cars and three Italian cars, whereas any of the many French makers is in luck to get one car into the competition. The frog-eaters should not feel badly about this. Mr. Brasier only needed They and one car last year to put six Mercedes and three of their step-brothers out of business.

The importers' salon is in full bloom. The people throng the hall; the festoons wave; the mural paintings shine; the electric lights gleam; the show men smile; the band bursts into melody; the Geisha girls make tea; the signs beam graciously; the New York Herald reporters labor mightily; the ladies gossip; the men flatter; the orators are eloquent; the costumes are gorgeous; the wonderful European cars are there or hope to be, and the vacant space is filled with the social lions. It is certainly a great show this importers' salon, and it ought to make a lot of money for its promoters.

THE KIDNAPPER IS CAUGHT

The Effort of the American Automobile Association To Secure Control of the Dewar Cup Brought to Sudden End—New Yorkers Prepare for Sudden Rush to Florida Beach

New York, Jan. 9—Sir Thomas R. Dewar, M. P., who has given a \$1,000 challenge cup for the mile championship at Ormond and will be honorary referee of the Florida tournament, arrived on Thursday. He was met by Senator Morgan and a considerable contingent of prominent motorists. The baronet went at once to the Waldorf-Astoria where on Saturday morning he was visited by a delegation from the New York Motor Club, headed by President Hyde and Senator Morgan. Other members in the party were H. Rossiter Worthington, F. J. Griffin, C. C. Boynton, J. R. Eustis and H. R. Lounsbury, Jr. Sir Thomas accepted the club's invitation to the Ormond dinner and smoker of the club at which he is to be guest of honor. It will be held at the Hotel Astor on Sunday evening, January 15. On this occasion visiting tradesmen will be entertained by the members. The club itself has invited the presidents of the prominent automobile manufacturing concerns.

The club now has 160 members. All are expected to be present and have guests. The committee is reckoning on the possibility of there being 400 to sit down at the banquet, though the club is but 2 months old. The waiving of the initiation fee, which was originally set to expire in January 1, has been extended by the directors 60 days.

On Tuesday of this week Charles H. Hyde will entertain Sir Thomas Dewar and his party, including John Peters, of London and Frederick Glassup, at luncheon at the Hamilton Club, Brooklyn. A few prominent Brooklynites will be invited to attend this luncheon and meet Sir Thomas. Before returning to Manhattan, Sir Thomas and his party will be taken around Brooklyn in automobiles and shown the sights.

Conditions to govern competitions for the Sir Thomas Dewar trophy have been announced by Senator Morgan. The distance shall be a mile and although the first race is scheduled for Ormond, it may be held anywhere. Although the A. A. A., and the Automobile Club of America tried to get their hands on the trophy, Sir Thomas promptly adopted Mr. Morgan's suggestion to have it in charge of a board of trustees. Following are the conditions:

1—The cup shall be known as the Sir Thomas Dewar International trophy.

2—It shall be raced for at the Ormond-Daytona tournament, January, 1905, and annually, or at such shorter intervals as the trustees shall decide, thereafter, on the Ormond-Daytona beach or some other suitable course.

3—The distance of each race shall be 1 mile, straightaway, with flying start.

4—The trophy shall be raced for at least once in each year.

5—The contest shall be open to any and all cars, regardless of weight, power or country of manufacture.

6—The trustees shall have the right to reject any entry.

7—In the event that no tournament be promoted within 1 year of January, 1905, and annually thereafter, acceptable to the trustees as one in which to submit the trophy for competition, the trustees shall give notice of their readiness to accept challenges and promote a contest. The race shall take place not less than 90 days before, nor more than 6 months after, such an-

nouncement and the expense of conducting it shall be borne equally by the contestants.

8—The entry fee for each contest shall be \$50, which must accompany the entry, except that the holder of the trophy shall be exempt from the payment of the fee. The proceeds shall be devoted to a fund for the construction of a speedway within 100 miles of the city of New York.

9—In case it shall be necessary for the trustees to promote any race, as provided in section 6, they shall have the right to demand of the contestants a deposit of a sufficient sum of money to guarantee the payment of the cost of such promotion.

10—If any race shall be run on a public highway, the trustees shall first obtain the consent of the proper authorities and shall make suitable provision for policing the course.

11—The trophy shall be delivered to the winner after each contest on the filing of a bond, acceptable to the trustees, for its safe return. The name of the winner in each case may be engraved upon the cup, or on its base by order of the trustees, and in no other way.

12—The board of trustees shall consist of the president of the American Motor League, the general manager of the National Association of Automobile Manufacturers, the secretary of the Florida East Coast Automobile Association, the president of the New York Press Club, W. J. Morgan of the New York Motor Club, H. L. Bowden of the Massachusetts Automobile Club and American Automobile Association, Angus Sinclair of the Automobile Club of America and New Jersey Automobile and Motor Club, and Frederick Glassup, representing the donor of the trophy. Vacancies in the board shall be filled by the remaining members.

13—The board of trustees shall have power to decide all matters not specifically covered by these conditions.

New York, N. Y., Jan. 9—The shipment of racing cars to Ormond has already begun. Several of the leading aspirants for Florida honors are preparing to follow them soon and be on hand for practice and to try out their cars several days before the tournament begins. Already the Croker Simplex, the Vanderbilt Mercedes, the Peerless Green Dragon and the Pope-Toledo Bennett race flyer, which A. C. Webb will drive are on their way to the beach. S. B. Stevens is at Daytona now with the Mercedes Werner drove in the Vanderbilt cup race.

W. J. Morgan, manager of the meet, and A. L. McMurtry, who will be chief timer, will start on Thursday of next week. There will be others to follow by every train until Saturday, when the big rush will begin. The Seaboard Air Line Florida limited will carry a big party on Saturday. At midnight immediately following the A. C. A. banquet Secretary Butler and several other club members will accompany him. A special train will leave on Sunday over the Southern, which will have on board many of those detained until the last moment by the shows. Although it is expected that the timing apparatus will be up and working by Monday there will be no scheduled racing and whatever time trials are made will be merely practice spins. The regular racing and record breaking will begin on Tuesday.

The entries are pretty well all in. The principal competitors were set forth in MOTOR AGE last week. It is possible that Henri Fournier may enter his Hotchkiss car on his

arrival here. The entry of the Pipe, which Baron de Caters is scheduled to drive, is said to be practically assured.

Interest in the Cuban races are on the increase. The entries of Barney Oldfield and the Green Dragon, H. L. Bowden and his double engine Mercedes, Webb Jay and the two Whites, and William Wallace and the Fiat. The latter, by the way, will be at Ormond after all.

Entries for the Cuban tournament will close with W. J. Morgan at 116 Nassau street, New York, up to January 15 and at Hotel Ormond, Ormond, Fla., up to January 23. The entrance fee is \$5 for each event, except the 100-mile, for which the fee is \$25. In all events but the 100-mile three prizes will be given. In the 100 miles in addition to the first prize a gold souvenir medal will be given each driver finishing the race within two hours running time. No fee will be charged for the sight seeing run or parade.

Fine accommodations can be had in Havana for men and machines. It is said that the officials and newspaper men will be quartered at two villas on the course, which the Havana Automobile Club has leased for tournament week.

Anderson & Price say that practically every room at the Ormond hotel and the Inn has been already engaged and that they propose to turn the Casino into sleeping quarters for men. If this does not suffice to accommodate the throng Mr. Flagler will run special trains every day from St. Augustine, which is two hours distant and has unlimited hotel accommodations.

PARIS IN HIGH GLEE

Paris, France, Dec. 28—The banquet du salon was held last night at the Automobile Club of France. Minister of Commerce Trouillot, Commander Fraysse, representing the president of the republic, and Lepine, chief of police, were the special guests. Among the others present, who numbered many hundreds, was almost every manufacturer of importance in France, many motorists and as usual deputies, senators, officers and other more or less well known people. During the dinner an orchestra of more than eighty musicians rendered music, while Cleo de Merode, premiere danseuse du monde, kept everybody gazing.

When the hour for speeches had come Gustave Rives, general manager of the salon, made the first address. After thanking the minister for his presence and the protection he has given the industry, and after thanking the president of the republic for having sent a representative, Rives spoke about the show which had just closed and which surpassed all its predecessors in magnificence, in attendance, in the amount of transactions made, in the general interest of the public and in the large number of foreigners who came from many far away countries to see the salon. Minister Trouillot addressed the assembly and said that one of the best evidences of the success of the salon was the fact that 320,000 people paid admissions during 2 weeks, while during the 4 weeks of the annual fine arts exhibition in the same hall only 220,000 people attended. This proves, said the minister, that France occupies the first place in the automobile industries of the world, and it is another reason why France should keep the Bennett cup.

At the banquet of the Automobile and Cycle Board of Trade, A. Darracq was the principal

speaker. After speaking of the greatness of the 1904 show and the ever increasing importance of the automobile trade Darraq said: "It does not matter whether it be universal or international expositions, whether they are held in Paris, in Turin, in Amsterdam, in Brussels, in St. Louis, or in Liege—we are always there and if we thus impose upon ourselves a sacrifice we do it for the glory of our country, in order to have the name of France shine everywhere in the world, and we are ready to respond to the invitations of our government to exhibit anywhere where it will tend to help our industry."

In connection with both banquets it was noticeable that they were made as important as possible and a certain grandeur was attached to them which seems to increase every year. A great many tradesmen probably consider it more of an honor to be able to assist at these banquets than at most any other function. Some who probably would not come to Paris for any other purpose make the trip and speak about the affair as an event which they will never forget, and consider it of great importance.

FIGHTING THE TOWNSHIP

Philadelphia, Jan. 9—Nothing daunted by his knock-out in the Superior court, Samuel Bell, Jr., who recently lost his case against Radnor township, in which he disputed the right of the latter to fine him for speeding his automobile beyond the township's limit—he was well within the maximum allowed by the state—has decided to carry his fight up to the Supreme court. In this decision he has the backing of the Automobile Club of Philadelphia and its able counsel, Ellis Ames Ballou. Mr. Ballou will file his bill of exceptions before January 14, and a decision may be handed down next month or possibly in March. Mr. Bell thinks that Judge Orlady, of the Superior court, erred in not giving due weight to the fact that the present automobile law of the state was framed, among other things, for the purpose of doing away with the multitudinous and conflicting ordinances of picayune boroughs, villages and townships, and substituting therefor one set of laws which would govern the operation of motor vehicles throughout the state.

WALLACE GOES SOUTH

Boston, Mass., Jan. 9—William Wallace will compete in the events at Ormond next week. This decision on the part of Mr. Wallace was made within the last few days, after receipt of information from Costa Rico that the machinery he was to go south to install had been delayed. This means that Mr. Wallace will have a month's extra time at his disposal, which will permit his engaging in the events on the Florida coast. His Fiat car, the same he used in the Vanderbilt race, was sent south Saturday.

BOWDEN DECLINES THE JOB

Boston, Mass., Jan. 7—Herbert L. Bowden has declined to accept the position of chairman of the A. A. A. racing board. Mr. Bowden has carefully considered the idea and, while fully realizing the high honor paid him by President Whipple in the offer, feels in duty bound to decline. In his letter of declination Mr. Bowden has suggested that W. C. Temple, of Pittsburg, be accorded the honor and the work that goes with it.

CARS REACH DAYTONA

Walter Christie's New Creation the First To Arrive for the Florida Coast Tournament

Daytona, Fla., Jan. 8—The first of the racers for the Ormond-Daytona races arrived on the beach today. It was the special car built by Walter Christie especially for this year's races, to be driven by the owner. Mr. Christie's car created considerable excitement as he drove it through the quiet streets of Daytona. The squirrels scooted up the trees as he opened the exhaust and the birds took wing at once. The inventor-owner-builder-driver was accompanied by his wife and Oliver Reid, the mechanic who will ride with him in the trials and races he enters.

Mr. Christie took his car at once to the beach to try the effects of the air upon his carburetor and see how the conditions suited. The machine is painted dark blue and has a solid appearance due to the engine being placed over the front axle. Everybody knows that Mr. Christie's car differs from all other racers in that the machine is front driven. The motor is directly between the front wheels and the drive is direct upon the axle. The car has but two speeds.

The car is a considerable improvement over the one used last year. This second car is the one which was seen at the Empire track late in the season, but which the owner was not able to test because of tire troubles. Since that date Mr. Christie has made a number of improvements; has turned the engine around, so that the exhaust is under the car instead of in front; has altered the driving mechanism and protected the gearing and differential by solid plates closely bolted to the frame. The car at present has 40-inch front wheels of nickel-bronze.

Asked about its power, Mr. Christie said the car was rated at 60, but he could not tell just what power it would develop. No attempt was made to speed the car on its first trial, the run being devoted to the study of mechanical conditions and the effect of the damp air upon the carburetor and engine.

The Stevens Mercedes is expected within a day or so and there is also an intimation that the six-cylinder Pope-Toledo will be seen on the beach before the week is over. President Edward M. Steck, of the Florida East Coast Automobile Association, and the other officers of the organization are holding daily meetings at the supplementary club house on Ridgewood avenue. This is a cottage which President Steck has purchased and the use of which he has given to the association until the week of the races for the purpose of holding preliminary meetings. Many of the details of the races are being settled now and plans made for the accommodation of guests, drivers, machines, mechanics, officials and newspaper men. The most important decision yet arrived at is to make the club house of the association on the beach the official headquarters of the races. There the referee and judges will hold their daily meetings and the program will be arranged each evening for the following day. There all protests will be heard and decisions rendered.

Each night a complete bulletin will be issued giving the results of the races during the day and a tentative program for the

morrow. Such a program, of course, can be followed only in part, but the main points will be settled before the night falls. The only changes to be made on the morning of each day will be the spots where the races are to be run according to the beach conditions and such minor points as cannot be decided in advance. A room will be set apart for the newspaper correspondents and another for the telegraph operators, and two will be constantly on duty. In addition there will be a private room for the officials to use as a deliberative chamber.

The club house will be in charge of a large reception committee headed by C. G. Burgoyne, ex-president of the association. One of the main improvements this year will be extra openings under the two piers, which will eliminate all possibility of danger when several cars are running together at full speed.

GREEN IS GAME

Dallas, Texas, Jan. 8—The prospects are good for another automobile race in Dallas between the foremost promoters of the sport in Texas. J. Howard Hughes, of Houston, is not satisfied that his Peerless machine was decisively beaten by E. H. R. Green's Pope-Toledo. In the 100-mile race in Dallas January 2 honors were practically even at 58 miles, when the mishap took place to the Columbia machine of A. B. Wharton, of Fort Worth, and Hughes estimates that Green's Pope-Toledo might not be so much in a 50-mile run as it was in the 100-mile contest, because two bad mishaps occurred to his own machine during the first half of the century run. With this feeling animating him, Hughes recently challenged Green to a 50-mile race, each to use the same machine as in the 100-mile event, and the contest to take place February 11. Hughes requested that the race be open to Wharton's Columbia, inasmuch as the Fort Worth man's machine made such a good showing. Green replied, accepting all the conditions. Green leaves for New York in a few days, where he will attend the show for the purpose of observing the latest creations.

WILL NOT REFEREE

New York, N. Y., Jan. 11—Special Telegram—A. R. Pardington, who will retire from the chairmanship of the racing board at the A. A. A. annual meeting, has declined to serve as referee at Ormond and will not go to Florida. At a meeting last night of the Automobile Club of America the members formally authorized the governors to purchase lot, build a club house and issue bonds for the new club house. Nearly half a million dollars will be spent in this work.

OLDFIELD STILL HAS RECORD

Chicago, Ill., Jan. 10—A study of the fast rides made on the circuit last season shows that the mile record still belongs to Barney Oldfield, although his record of 51½ seconds, made at Denver and that of 52¼ seconds made in Cleveland by Earl Kiser were not allowed. Oldfield covered a mile in 53 seconds in Los Angeles, Cal., December 17, in a special trial against time, and this is 1 second faster than the time made by Charles Basle at Providence, R. I., last September.

The racing board of the A. A. A., has made no announcement of what record it proposes to accept.

FRENCH RACE TROUBLES

Huge Fee for Bennett Race Eliminating Event May Cause the Entry List To Be Small—Enthusiasts Wrangle Over Prospects of Grand Prix Being Combined with Cup Race

Paris, France, Dec. 31—The week ending to-night has been historical. The closing of the salon, the banquet, the selection of the course for the Bennett cup race, the creation of a new international race—all this happened within the last few days of 1904.

The most important meeting of the year of the sports committee of the Automobile Club of France was held Wednesday and what happened was briefly cabled to *MOTOR AGE*. The selection of the circuit d'Auvergne was unanimous, but before the vote M. Brasier addressed the committee and stated he preferred the Circuit des Ardennes, because of the former being too dangerous and because results would be doubtful. He added, however, that he would vote with the majority. Letters were read from the mayor of Clermont-Ferrand and Michelin, the tire manufacturer, guaranteeing a subsidy of \$40,000. Marquis de Chasseloup-Laubat talked of the 1906 Bennett race and said it was the unanimous opinion of the sports committee and of almost all French manufacturers that the present rules of the international competition are not in keeping with the conditions of the automobile industry. The committee has decided to keep its engagement of having the French industry compete in 1905, but the Automobile Club of France will not take part in the 1906 race unless the rules are changed.

Rene de Knyff read the rules which are to govern the French eliminating race. Some important changes were made from the rules of a year ago. As before, a single manufacturer may enter three cars, but concerns making cars under one license are only entitled to enter three cars among themselves. If such concerns should not be able to decide among them how many cars each should enter, the sports committee will decide the matter; taking the importance of the concerns and the number of cars they have sold for last 3 years as a basis. The first three cars finishing in the eliminating race will form the French team for the Bennett race, in which they must be driven by the same drivers who drove in the eliminating race. The cars must also be fitted with tires of the same make as used in the eliminating trial. No driver is to be permitted to make arrangements with more than one concern and is bound to fulfil his engagement. The makers of the cars selected must place a supplementary car at the disposal of the Automobile Club of France, which will have under its control the cars forming the team between the time of the eliminating race and the cup race. The entrance fee will be \$2,000 per car and the entire fund will be used to cover the expenses of the eliminating and final race. The date of the preliminary race was not decided, but it is intended to hold it a month before the Bennett. The cars will be started at intervals of 2 minutes and the order of the start will be decided by drawing.

A proposition of Marquis de Chasseloup-Laubat to organize an international race, to be named the grand prix of the Automobile Club of France, in which all makers of any

nation will have the same rights, was adopted. In 1905 the event will be run at the same time as the Bennett race and in succeeding years the event will also be run and become an annual fixture. The organization in 1906 of an international team race will be considered by the committee.

In connection with the grand prix l'Auto announces that it offers a prize of \$20,000 to the manufacturer whose car wins the event. It has also started a subscription and the money thus received will be divided into prizes for the second, third and other finishers. Baron de Zuylen, president of the Automobile Club of France; Marquis de Dion, president of the General Automobile Association; Marquis de Chasseloup-Laubat, and several other well known motorists have already donated from \$100 to \$250 each. The regulations of the race will be published in a short time.

James Gordon Bennett, when asked about the decision made by the French club, said: "When I donated a trophy for an international race, I did so with the sole object of favoring the development of the new industry. I did not care that my name be given the cup. I still hold the same opinion as when I first gave the trophy to the Automobile Club of France, for which I have the highest esteem. I know those at the head of the great organization are working only in the interest of the automobile industry."

Marquis de Dion said the organization of another big race had been welcomed by the trade, inasmuch as everybody believes the Bennett race, as run at present, does an injustice to the French makers. He said he did not think the distance of 500 or 600 kilometers sufficiently long and favored a team race, for which he has already offered a trophy. An official of the Daimler Motoren Gesellschaft, at present in Nice, telegraphed l'Auto that the concern would compete in the cup race but would decide about the grand prix only after knowing the rules. Baron de Crawhez thinks the decision of the French club just. Jenatzky says the club made a big mistake. "In a race great speed is attained and consequently straight roads are needed. Instead, the club has chosen an exceedingly dangerous circuit, and in having two races run on it at the same time it becomes a still more dangerous event. If the race were run like the former Paris-Berlin or Paris-Bordeaux events—that is, a road race on a continuous straight road—then the danger would not be so great, but under present conditions it is really taking too much chance in adding another important event to it." Hautvast, writing for the Pipe company, says the Belgian concern would not take part in the cup race, as it is dangerous enough in itself without permitting other drivers on the course at the same time.

It cannot be well foreseen what will be the outcome of the difference of opinion among makers, drivers and sportsmen. It is positively asserted that without the interference of several of his friends, Brasier would have withdrawn from the eliminating race, as he considers the course extremely dangerous. While

all manufacturers are pleased over the announcement of another important road race, some think it ought to be run separately, and this may yet be decided.

Paris, France, Jan. 7—Special Cablegram—According to Figaro, most of the French manufacturers are not inclined to enter cars for the eliminating race on account of the entrance fee which amounts to \$2,000 a car or \$6,000 for the three machines, if a maker enters his quota of three cars. They claim it costs a small fortune to build the cars and otherwise prepare for the race, and that an entrance fee of \$1,000 a car would be plentiful. While thus unwilling to compete in the most important of the yearly races, the manufacturers seem enthusiastic about the grand prix of the Automobile Club of France, in which the first prize will be \$20,000, with several thousand dollars for second and third, besides medals and other valuable art prizes. The position taken by the manufacturers has embarrassed the officials of the Automobile Club of France and it is rumored they will suggest to the sports committee that it reconsider its decision about the entrance fee and make it such an amount as will satisfy the makers.

Providence, R. I., Jan. 7—The annual meet-

TELLS HIS TROUBLES

ing and banquet of the Rhode Island Automobile Club was held on the evening of January 4 at the club headquarters. The election of officers for the year resulted as follows:

President, Dr. Julian A. Chase; first vice-president, W. Penn Mather; second vice-president, Darwin Almy; treasurer, Howard D. Wilcox; secretary, Elliott Flint; governors to serve until 1908, Charles O. Read and Darwin Almy. The club had as guests at the banquet which followed the meeting President Harlan W. Whipple of the Automobile Association of America, and A. R. Pardington, chairman of the racing board. The talk of the evening was made by A. R. Pardington, chairman of the A. A. A. racing board, who spoke as follows:

"Due to a series of unfortunate occurrences over which I had no control, I awoke one morning to find myself the chairman of the racing board, an unorganized entity, having no rules, no line of procedure and no blazed trail to follow. Others would have, as did I, think it over and decide to allow another to unravel the mystery. I decided to do so, but the president—your president—urged me to reconsider. I did so and am glad I did. My 2 years and a little over of chairmanship has been a most excellent experience, trying at times, but generally agreeable. It has tried the patience and souls of the members of the board more than once to harmonize the demands of the racing man, the claims of the promoter, and the insistent clamorings of the manufacturer or his agent. During all this there remained one body which made no demands or claims, although its claims were paramount. I refer to the great unwashed—the public—the man who had paid and was willing to pay his share toward the upbuilding of the sport by buying the cars put on the market by the manufacturer and who was also willing to pay his 50 cents or more to the promoter to see the racing man do his stunt. If he did it fairly and was either victorious or a loser the ultimate result was the same—satisfaction.

"The newness of the sport, its wonderful development, and the new conditions presented

because of these two factors have offered some hard propositions to the board and its members. It has offered a larger number of difficult questions to the promoter, the club, in its desire to foster the industry and up-build the sport. It has required patience, caution, deliberation and painstaking care to harmonize all of these interests, satisfy all and keep the public in a frame of mind calculated to hold his attention and insure a continued expenditure of good cash.

"It must be remembered that there were no precedents to be followed on this side of the water. I speak particularly of track racing. Track racing is almost an unknown sport in Europe and on the British isles. For one race meet of any sort, held abroad, we conduct ten, possibly more. Road racing—the royal sport—has been developed abroad until today France is planning for no less than six classic, long distance events during 1905 to be held on the highway. We are looking forward to one, the second race for the Vanderbilt cup.

"The 1905 race for this trophy should result in an event second only to the Bennett event. It is to be hoped that the cup will be retained in this country due to the success of the American manufacturer in designing and building a car calculated to show the necessary enduring qualities, combined with sustained high-speed.

"Of the great race held last October, little, if anything remains to be said. That it was the success which it was, is due to the hearty co-operation of the American and the foreign manufacturers, the liberal and loyal act of Mr. Vanderbilt and the persistency of effort of the racing board and the A. A. A. officials. From June to October it was my good fortune to be on the spot and watch the affair grow and develop. The experience was unique and helpful and I hope beneficial. We made history in a most strenuous manner and in building the same, we tore down any number of old deep-seated prejudices and softened many bitter animosities.

"As a sport-loving nation we have taken our place well to the front in the national rank. As a factor to be reckoned with our place is assured. American cars, manufacturers, racing men and records today hold an exalted position among their fellows.

PANHARD SURRENDERS

New York, N. Y., Jan. 10—Special telegram—Panhard and Levassor, of Paris, and A. Massenet, manager of their American branch, have surrendered to the Association of Licensed Automobile Manufacturers, the Panhard thus becoming a Selden-licensed machine. The back royalties will be paid to the A. L. A. M. and Panhards hereafter imported will bear the regular licensed tag. Panhard and Levassor have asked that the suit which was brought against them by the A. L. A. M. be withdrawn, consenting to a decree in favor of the A. L. A. M. and to a permanent injunction restraining them from the sale of Panhards in this country except under the license of the association. It was said today by a representative of the A. L. A. M. that this action on the part of the Panhard company is the outcome of evidence thus far presented in the suits of the A. L. A. M. now pending against American manufacturers who are alleged to be infringers of the Selden patent. It is also expected that C. L. Charley, of Paris, and his American sub-agents of the Mercedes will also capitulate.

ARRANGING BIG EVENTS

De Caters and de Crawhez Trophy Races Attracting Attention of Automobilists Abroad

Paris, France, Dec. 28—Baron Pierre de Caters has offered a valuable trophy for an automobile race, which will be open exclusively to touring vehicles. Instead of being a reliability trial it will be a speed contest, a race over a distance of probably 300 to 400 kilometers, open to all countries and run according to the regulations of the Bennett cup race, with some changes which the donator said were absolutely necessary to arrive at a thoroughly satisfactory result. In the first place the Belgian sportsman suggests that the number of cars entered by a country should be decided according to the importance of the automobile trade in that country. In order to approach standardization more nearly in the style of cars, all the vehicles should have motors of within a certain cylinder capacity, which would develop about 40-horsepower. A maximum weight of 2,420 pounds is suggested for the chassis and a minimum of 440 pounds for the body. All the bodies should be open and all of a similar style, as should also be the front and rear mudguards. The bodies must be complete and exactly like those generally sold to the public. The chassis should have a certain minimum length and width and all cars will have to carry four passengers weighing about 155 pounds each. The winner of the cup will be of the country having secured the least number of points.

These are some of the rules suggested by the baron and the one concerning the way the countries are to be represented and how the winner will be determined have given rise to much discussion. Inasmuch as the final regulations will not be ready for quite a while and as these will be arranged by an international committee and with the assistance of l'Auto, motorists are satisfied that the event will be one of the most interesting. Every one seems to agree that this is the kind of an event that has been lacking, inasmuch as reliability trials and slow long distance runs have not effectively demonstrated the speed qualities of touring cars.

Baron de Crawhez, of Belgium, who recently donated a trophy for a race, announced that it will be known as the regularity cup and that the contest will be a team race, which will be run over the circuit des Ardennes in Belgium.

Manufacturers are to enter three cars, the fee being \$500 per car entered. Of this amount \$300 will be used in connection with the organization expenses and \$200 for prizes. On the \$200 only half will be given to the winning team, 10 per cent to the team making the best time and the remaining 40 per cent will be reserved for a special fund. In order to win this fund a manufacturer must win the event 2 years in succession within 6 years. In this case the winning team will receive the fund. If during the 6 years no concern has won twice successively it will be given to the concern which has won the event the greatest number of times and should there be a dead heat the winner will be the concern having made the best total time.

The cup race will be run under the regulations of the Automobile Club of Belgium some time in August. The distance has not

yet been decided upon, but will probably be of at least 500 kilometers. This will probably bring the number of important automobile road races in Belgium to three for this year.

Still another race is to be added to the already long list of important events. Marquis de Dion, vice-president of the Automobile Club of France, who has for a long time suggested that the Bennett race should become a team contest between makers instead of between nations, offers a trophy valued at several thousand dollars for such an event, to be run under the auspices of the club. "I suggest," said the marquis, "that the distance be at least 1,000 kilometers and that the principal object be regularity instead of speed; that is, the cars should demonstrate that they can maintain a high speed over such a distance. Instead of limiting the number of cars for each country, I think there should simply be a limit to the number entered by a maker and that each manufacturer be represented by a team of say three. I also suggest that a change of drivers be permitted without subjecting the cars to disqualification. The event should be run every year in the country whose team wins the preceding event." While it is not the intention of de Dion to have the team race run before 1906 for the first time, there are rumors in automobile quarters that an endeavor will be made to have the first event the latter part of 1905.

Of course there are many motorists who are jubilant at the idea of being able to see some great races but there is a minority which is becoming uneasy at the increasing number of projected automobile road races and they claim that if this tendency continues there will sooner or later be a revival of the ill feeling of the general public.

BUFFALO SHOW EXHIBITORS

Buffalo, N. Y., Jan. 9—For the first time in the history of Buffalo automobile shows all the space available in Convention hall for the show this year has been allotted upon the first day of allotment. The executive committee of the Buffalo Automobile Trade Association met this noon and awarded the space. The only way by which several firms to which no space was given today can get a chance to show their cars or sundries is by the addition of space in the ante-rooms of the hall. This may be done as the management is anxious to make the exhibition as large and comprehensive as possible. Consideration was given to space-wanters on the basis of the number of previous shows at which they had made exhibition. Most of the larger retail automobile stores of Buffalo and the two principal local manufacturers, Pierce and Thomas, have the same spaces they occupied last year. Five tire companies received allotments whereas no tire company had an exhibit last year.

EXPECTS AID FROM NEW YORK

Philadelphia, Jan. 9—Coming, as it does, during the week directly following the New York show, the exhibition under the auspices of the Philadelphia Automobile Trade Association will have the benefit of quite a number of complete exhibits from the larger show. These will be loaded onto the cars at Jersey City, and will be brought over by the Reading to its freight station at Thirteenth and Callowhill streets, just a block away from the First Regiment armory, where the show is to be held. These exhibits, which will fill a train of a score or more of freight cars, will reach here in ample time for the opening Monday.

ORGANIZE IN BAY STATE

New Organization Formed with the Object of Being the Largest Body in Massachusetts

Boston, Mass., Jan. 8.—The Bay State Automobile Association, composed of automobile owners and drivers, was organized and secured a charter under the laws of the state the past week. The organization starts, life with a charter membership of almost fifty owners and active motorists of the state. It was organized for the purpose of increasing automobile interests, not alone of Boston but of the entire state, and it will be the effort of its officers to create a more healthy condition of things automobilica. It proposes if possible to secure a membership that will be as large numerically as any organization in the state, and with the board of officers already selected there is every reason to believe that the organization will soon become a power in the automobile life of Massachusetts.

The organization was perfected for the promotion of a social club composed in whole or in part of persons owning or operating self-propelled vehicles for personal or private use, to offer a means of recording experiences of members and others using motor vehicles or automobiles, to promote original investigation of motor carriages, to co-operate in the securing of rational legislation and the formation of proper rules and regulations governing the use of automobiles in city and country, to protect the interests of owners and users of automobiles against unjust or unreasonable legislation and to maintain the lawful rights of owners and users of all forms of self-propelled pleasure vehicles, to encourage the promotion of the automobile and to promote and encourage in all ways the construction and maintainance of good roads and the improvement of existing highways and generally to maintain a social club devoted to automobilism.

When the idea was first suggested it met with the hearty approval of the majority of the best known motorists of this section and there was little difficulty in securing the co-operation of many leading men, as shown by the board of officers elected: President, Lewis R. Speare; vice-president, Frederick Tudor; treasurer, Herbert L. Bowden; secretary, John C. Kerrison; board of governors, George R. Alley, Harry Fosdick, E. A. Gilmore and W. W. Burke.

The club officers propose taking an active interest in everything connected with the sport and to make the organization exactly what its name implies—a state association. No club house is to be built or rented, but headquarters are to be carried along on much the same principle as are those of the Rhode Island, Buffalo and Cleveland clubs, all of which have headquarters established at one of the leading hotels.

LEAGUE AN EARLY SUCCESS

Paris, France, Dec. 27.—There are few new organizations which have met with so much success as the League des Chauffeurs which is less than a month old and which has already several hundred members, among which are some of the best known motorists of France. The object of the chauffeur's league

is to fight against any arbitrary measures, either pertaining to law or to government or state measures; to try and obtain the unification of all regulations, ordinances and laws through France; to study the tax question and the insurance rates and try to adjust them to the mutual satisfaction of all concerned; to take care of cases against chauffeurs after the special committee has reported on them.

To be entitled to membership a person must be the owner of either an automobile, motor cycle, motor boat or motor tricycle or else have an official certificate as a driver. Members of the Automobile Club of France, the Touring Club of France, the General Automobile Association and the Association of Country Automobile Clubs are members by right. The annual fee for active members is \$2.40, for honorary members \$1.20 and for benefactor members \$20. Eight of the latter class were accepted on the first day the league was formed and they contributed nearly \$500 for the fund of the association. Alexander Burton, the American automobilist; Madam Bob Walter; Henri Desgranges, editor of *l'Auto*, and others donated \$100 each.

Ernest Archdeacon, one of the veteran automobilists of France, was elected president, Henry Desgranges is vice-president, and George Lefevre secretary. Among the members of the committees are several deputies, many members of the bar, members of the Automobile Club of France and of other clubs, and several members of the parliamentary committee.

ANOTHER DIPLOMATIC SCORCHER

Washington, D. C., Jan. 9.—Closely following the Gurney incident, involving the question whether diplomats were immune from arrest for violating the speed regulations, comes the case of M. Des Portes de la Fosse, counselor for the French embassy, against whom complaint was made by a bicycle policeman that he violated the automobile speed regulations and then refused to identify himself to the policeman. The policeman states that he was crossing Dupont circle when a touring car flashed by him at a speed far in excess of that permitted by the regulations. After a hard run the policeman finally overhauled the offending automobilist and the latter then stated he was connected with the French embassy, but refused to give his card. The policeman took the number of his car and a search of the list of names of all automobile owners in the district on file in the district building revealed the fact that the owner of the car was M. des Portes.

The latter, it appears, has been the subject of several complaints which have been forwarded to the state department, and now there is some talk of calling the attention of the French ambassador to the matter. M. des Portes maintains that he was not violating the speed regulations at the time of his arrest. "As a matter of fact," he says, "the maximum speed possible to attain with my car is 20 miles an hour. It would be impossible, therefore, for me to have been running 22 miles an hour, as the policeman reports." The outcome of the matter will be awaited with interest for it will determine the question whether diplomats and attaches who speed their automobiles beyond the limit prescribed by law are immune from arrest owing to their connection with the diplomatic corps.

DESIRE EARLIER SHOWS

French Manufacturers Contemplate Holding Exhibition in the Fall, Possibly in October

Paris, France, Dec. 26.—Last night the seventh annual salon de Paris came to an end, and today one can hear people already welcome the next big show, the greater salon, as they name it. One of the features about the 1904 show was the unprecedented large amount of business done with Britishers, who came across the channel by the hundreds. Never before were so many leading English dealers at the Paris show and it has caused a disagreeable sensation in England.

It seems that among the foreign exhibitors the most satisfied are the Germans, who tried hard to make displays which would attract the crowds and who showed cars of real merit. Some of the German concerns yet little known in France, like the N. A. G., the Cudell, the Benz, and the Scheibler, had as fine cars as many of the French manufacturers and it would be surprising if they would not be able to do business.

The advantage of beautifully decorated stands was again demonstrated, as they attracted the most fashionable people, especially ladies, and without doubt were the means of many sales. Several manufacturers said although they spent thousands of dollars for decorations, they would never do without them. The grand prix of the city of Paris for the best decorated stand was awarded to the Delaunay-Belleville, the grand prix of the Automobile Club of France to Hotchkiss, gold medals to Georges Richard-Brasier and to Ducullier, while gold-plated silver medals were given to several others, including Fiat, Renault, Panhard and de Dietrich.

While the automobile reigned as king, it was also noticeable that the number of motorcycles on exhibit was very large, more than 250, and that a trade in this line was also very satisfactory. The success of this part of the salon was so great that a number of manufacturers have begun talking about the advisability of holding the motor cycle show entirely separate from the motor car show.

Among automobile manufacturers there was also much talk about holding the salon during the first 2 weeks in November, instead of in December, as has been the custom. Some even favor the latter part of October and suggest that the salon remain open 3 weeks instead of only 2 weeks. The rumor circulated during the weeks of the show that British manufacturers intend to arrange their annual show for the month of November has not frightened the French manufacturers but it is likely that if such a decision is reached the makers in France will see to it that the annual salon de Paris is always ahead of either of the two big annual English automobile exhibitions.

WANT UNIVERSAL SHOW

Paris, France, Dec. 31.—There has been talk in the capital during the year of urging the government to take steps towards organizing a universal exposition devoted to sports, exclusively. The ever increasing magnitude of the annual salon de l'automobile has again started the movement and it seems now certain that the project will be put through. A request to that effect has been drawn up and

will be laid before the chamber of deputies shortly.

Minister of Commerce Trouillot is heartily in favor of the scheme and so stated at the banquet du salon. The exposition is to be held in 1907 and the universal exposition of Paris proposed for 1911 will very likely be set back until 1920, when France will celebrate the half century of the proclamation of the third republic. Anyhow, there are many Frenchmen today who claim that universal expositions similar to that of 1900 are dead letters, but that special expositions, on a larger scale than the annual salon de l'automobile, for instance, have more value and should take their place, and the first of these should be largely devoted to the automobile sport and industry, in many countries but especially in France.

SHOW RAILROAD RATES

Chicago, Ill., Jan. 10—Considerable dissatisfaction was caused last year and a great deal of injustice was done to officers of the American Motor League by reason of a misunderstanding of the railroad arrangements in connection with the national shows. Manager Miles, of the N. A. A. M., explains the situation as follows: "The Trunk Line Association, to which application must be made for reduced rate to New York, has no power to grant a reduced rate for any commercial enterprise. The Central Passenger Association, of Chicago, is more liberal and has been in the habit of granting a reduced rate to practically all visitors to the Chicago show. The Central, however, covers only a part of the western territory. The remainder is controlled by the Western Passenger Association, which, like the Trunk Line Association, refuses to grant a rate to any commercial enterprise.

"The American Automobile Association and the American Motor League have been in the habit of holding their annual conventions at the same time as the shows. Last year both of them applied for reduced rates, which were duly granted, but under the conditions of the concession it was necessary for the officers to certify that the persons by whom certificates were presented were members of their respective organizations.

"This year the arrangement is practically the same, except that the Trunk Line Association will be more strict than last year. A reduced rate has been granted to New York to both the American Motor League and the American Automobile Association and to Chicago to the league only. The Trunk Line Association has notified both organizations that they will be required to deposit, on January 13, a complete list of their members so that there may be no question about who are or are not entitled to the rate."

CARS AT THE PARIS SHOW

Paris, France, Dec. 31—At the Paris show there were 438 automobiles, 146 chassis, and 49 trucks and similar commercial cars. Among the 438 complete cars there were 151 with detachable tops, 137 with permanent tops, ninety-five open light and heavy cars, thirty-five open voitures, nineteen omnibuses and one racing car. Of the 633 cars, chassis and trucks, 576 were made to use gasoline as fuel, forty-six were electrics and eleven were steamers. There were also 264 motor cycles on exhibition, of which ten had fore-car attachments. The number of motor car exhibitors was 158; that of motor cycles twenty-four.

ANXIOUS FOR THE SHOW

Madison Square Garden To Be in Decorators' Hands This Week; Opening Saturday Night

New York, N. Y., Jan. 9—Madison Square garden will throw open its doors next Saturday evening for the annual national exhibition of automobiles and accessories. It will be the largest show in the number of exhibitors and variety of exhibits in the history of the motor car industry in this country. That there are not more exhibitors and bigger individual exhibits is due solely to lack of space. Scores of would-be showmen are on the waiting list on the hopeless chance of some eleventh-hour withdrawal.

The management has met the demands for space as best it could. The withdrawal of some of the importers to an independent show of their own has not been missed and has helped matters but little. The main floor, raised platform over the arena boxes, a balcony, the private boxes, the restaurant, the concert hall, and the basement have all been pressed into service. The aisle space has been curtailed. The makers of complete wheelers have been confined to showing one of each model. In every way space has been utilized and economized and still the management has had to face the problem of making two bodies occupy the same space at the same time. The allotment of space was made according to fixed rules. Exhibitors have for the most part accepted the situation philosophically and without kicking and endeavored to put to the most efficient use the limited space allotted them. It will be a crowded show, with a sorry band of enforced exiles. How the trade increase of next year will be met is a problem yet to be faced.

The public has been promised much—wider range of choice, more for the money, added improvements, an increase in power and a greater luxury of equipment and embellishment—and is eager for the show to open. There is every promise that the home industry will score its greatest triumph and gain a victory commensurate with those already won in other lines of manufacture.

The Garden will be given over to the decorators and exhibitors Thursday morning. There will be the usual seemingly hopeless chaos at the start, which will gradually give way to promise of completion and wind up in a last day rush that will give the public on Saturday night a show near enough to entirety to make a creditable opening. The vanguard of exhibitors began to straggle in by the morning trains. A hustling about town for furniture and fittings and a rush to the freight and express offices to learn the whereabouts of cars en route or already promised, at once commenced. At the garages, in the hotels, at the clubs and in the newspapers the signs of the coming of the show are in intrusive evidence.

The show week gatherings will begin on Sunday with the Schwartzkopf luncheon at noon and the dinner and vaudeville racket of the New York Motor Club in honor of Sir Thomas Dewar and the visiting tradesmen in the evening. The annual meeting of the N. A. A. M. will begin on Wednesday morning and its smoker which replaces the annual banquet, on Thursday at the Waldorf. The Hyatt

dinner will take place on Wednesday at Pavilion hall. The annual dinner of the A. C. A. is set, as usual, for Saturday. The American Motor League will have forenoon meetings on several days. On Tuesday the A. A. A. will have its annual meeting and election at the Hotel Seville. From Saturday afternoon to Sunday night there will be a big rush for Ormond. Many will go to Palm Beach also—a few lucky ones have Cuba in view.

RECENT INCORPORATIONS

Milwaukee, Wis.—Orlando F. Weber Co., capital stock, \$80,000; to manufacture automobiles and parts. Incorporators Orlando F. Weber, Alfred Reeke and A. F. Soliday.

New York, N. Y.—Reo Motor Car Co., capital \$10,000. Directors R. E. Olds, Ciprian Andrade, Jr., and R. M. Owen.

Middleton, Conn.—Hubbard Motor Co., capital \$100,000; to manufacture motors for marine and stationary use.

Yonkers, N. Y.—Ardley Motor Co., capital \$75,000. Directors Theodore S. Fuller, Frederick P. Fuller, A. E. Rittenhouse.

Greenwich, Conn.—Marine Motor Works, capital \$100,000.

Chicago, Ill.—Yale Automobile Co., capital \$10,000. Incorporators E. A. Bartlett, E. M. Sterling, G. J. Pederson.

Weehawken, N. Y.—Weehawken Automobile Co., capital \$3,000. Incorporators Joseph W. Shellborn, Albert Lenly, Joseph L. Shellborn and Frederick R. Shellborn.

Milwaukee, Wis.—Middleton Mfg. Co., capital stock \$200,000; to manufacture automobiles and parts. Incorporators William C. Middleton, Frederick S. Middleton and Albert S. Schrewe.

Portland, Me.—Brackett Automobile Co., capital stock \$15,000; to manufacture motor cars. John W. Anderson, president; James R. Parsons, treasurer.

Southampton, N. Y.—Walter Automobile Co., capital \$250,000; to make automobiles and motors. Incorporators William Walter, John R. Van Derveer and John J. McBride.

Camden, N. J.—Martin & Hart Motor Co., capital \$50,000. Incorporators Frank R. Hansell, William F. Bidell and Joseph F. Cotter.

Boston, Mass.—Peerless Semi-Pneumatic Tire Co., capital \$50,000. George H. Prescott, president; Charles P. Cumming, treasurer.

Milwaukee, Wis.—Franklin Automobile Co., capital \$5,000. Incorporators Henry W. Ramien and Richard B. Ramien.

VANDALS AT ST. LOUIS

St. Louis, Mo., Jan. 9—The Olds runabout of H. M. Noel that was stolen recently was found by the police in a vacant lot. The fenders had been stripped off, the dashboard broken and the car mutilated in various ways to prevent identification. Besides, there had been a skilful skunk at work inside the car, disconnecting valve-connections and other devices, and finally putting the running gear out of commission by taking out bolts and putting some of them back the wrong way. A number of people are wondering why, for nothing was stolen. Every tool was in the box. The license number was under the seat and motor and carburetor were intact.

The vandalism has aroused a good many motorists to the danger of leaving cars unguarded on the street.

THE READERS' CLEARING HOUSE

AUTOMOBILE SKIDDING

New York, N. Y.—Editor MOTOR AGE—It was with interest I read your article on the subject of skidding in response to an article by R. E. Twyford. In your article you make the statement that a design is not possible that will prevent side slip. I desire to state that a patent has been issued to me for a design which makes the skidding of the wheels absolutely impossible. My earlier experiments proved to me that the differential was impractical, as the power was equal upon both wheels, and the resistance and loss of power caused by the angle of the front wheels, caused the car to pivot on angle and caused the hind wheels to skid. The power being equal upon both rear wheels and depending upon the differential, which must have resistance, to change the speed as well as the momentum of the vehicle, the same device applied to the front wheels gives equally as poor results. This leads me to the adoption of the patent design mentioned, where the wheels are connected by clutches to the driving gear and are operated separately by levers connected to the steering lever, whereby a slight move of the steering lever releases the inner wheel, while the full power is applied to the outside wheel, thereby forcing it to turn the arc of any circle without side slip.—J. W. M.

The individual drive system possibly would reduce the tendency to skid but not absolutely prevent it. By referring again to the article in reply to Mr. Twyford the correspondent will probably conclude with MOTOR AGE that the primary cause of skidding at high speed in turning a corner is purely centrifugal action and as impossible to prevent as the force of gravity.

POWER OF TWO-CYCLE

Kewaunee, Wis.—Editor MOTOR AGE—What power will a 6 by 7-inch two-cycle, double-cylinder engine develop and what will a 6 by 7-inch four-cycle double-cylinder engine develop, both at 400 revolutions? I want to know if the two-cycle motor has more power than the four-cycle motor at the same speed.—A. DISH-MAKER.

A rough formula for the relative power of two and four-cycle motors of the same bore and stroke and at the same speed is to take the two-cycle as being able to develop 50 per cent more power than the four-cycle motor. A 6 by 7-inch two-cylinder, four-cycle motor at 400 revolutions per minute will develop about 13 horsepower. At the same speed the two-cycle motor will develop about 20 horsepower.

STOPPING SELF-IGNITION

New Orleans, La.—Editor MOTOR AGE—I have just got hold of a car that has been run all summer in the north. When I started and ran it for a few minutes and then threw off the switch it developed a bad case of self-ignition. Taking out the inlet valves I found that the inner chamber was covered with sticky carbonized oil. I tried injecting coal oil and turning over the motor. This did not remedy

the trouble. I have been told that the motor developed this self-ignition last summer before it was put in the shop for a new coat of paint. Can you tell me of any way to stop the trouble? I don't want to take the cylinders off to scrape them out if I can help it.—ALLAN SHARP.

Unless the cylinders are removed so as to correct this premature firing by scraping the carbon MOTOR AGE can only advise the filling of the cylinders with kerosene and allowing it to stand 24 hours, then drawing the cylinders and removing the remaining oil by cranking.

INCREASING POWER

Port Washington, Wis.—Editor MOTOR AGE—How can I increase the power of a gasoline engine of 5-inch bore and 6-inch stroke? The inlet valve is $1\frac{1}{4}$ inches in diameter. Will the power be increased by putting in a valve 2 inches in diameter? If so, would a larger carburetor be required?—T. B.

An inlet valve $1\frac{1}{4}$ inches in diameter is altogether too small for a 5 by 6-inch motor. A motor of this size should have an inlet valve $1\frac{1}{2}$, or at least $1\frac{3}{4}$ inches, in diameter. Increase to this size and try the old carburetor. It would be better to use a new carburetor with an opening of not less than 17-16 inches. A 2-inch valve is entirely too large for the inlet and about right for the exhaust, if the motor is of high speed.

CASE HARDENING PROCESSES

Copenhagen, Denmark—Editor MOTOR AGE—Will you kindly explain the process of case-hardening differential gears made of 25-point carbon steel? Is steel of this degree of carbon correct for this use? How should Swedish iron for plain bearings be case-hardened? Which is better for an electric, one motor with differential, or two motors, one for each driving wheel? How does the latter construction operate without a differential? What size storage battery should be used with a 2-horsepower motor? Can a common dynamo be used for a motor? Is it necessary to use gears to vary the speed in a machine with a small electric motor? How may a noiseless muffler be made for a two-cylinder hydro-carbon motor of 4-inch bore and $5\frac{1}{8}$ -inch stroke?—JOHN GRAY.

It is not necessary to use hardened gears in the differential. By using No. 8 pitch teeth with ten-tooth pinions and thirty-nine-tooth gears there will be no trouble on even a 60-horsepower car. Give the gears a face of 15-16

inches. Twenty-five-point carbon steel is a good material, but MOTOR AGE would advise the use of a lower carbon nickel-steel for the purpose. There are advocates of both the single and double electric motors—the individual motors with stationary rear axle and the single motor on a live shaft with a differential. The former is more complicated electrically and the latter more complicated mechanically. Judging from the query that one machine is being built MOTOR AGE advises the use of the single motor. A 50-volt, 60-ampere-hour battery properly connected to the controller will be satisfactory. Do not expect the best results from a generator converted into a motor. A muffler constructed of 1-32-inch sheet iron, as shown in the illustration, will satisfactorily muffle the exhaust. It is a drum 7 inches in diameter and 24 inches long, with the exhaust from the two motors entering at either end and a series of four baffle plates for each end, having holes alternately at the outside and the center; the ones with the central holes having an opening the area of the exhaust pipe; the alternate plates with outside holes have twelve holes of a total area of that of the exhaust pipe. Between the center plate is a drum concentric with the shell and having twelve holes at either end the same size as those in the plates. The whole is to be covered with an asbestos sheet.

CIRCULATION INDICATOR

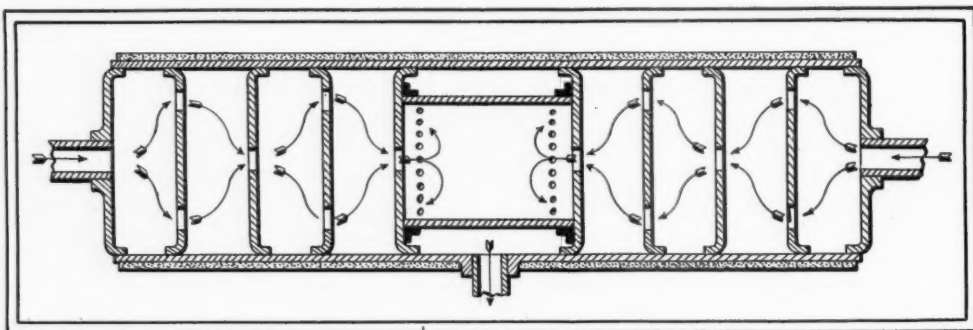
Middletown, Conn.—Editor MOTOR AGE—How is a circulating water gauge attached to the cooling system? What are the objections, if any exist, to the use of a spark gap and how is one connected for use with a three-cylinder vibrating coil, the spark gap to be located on the dash?—RICHARD H. BUNCE.

A manometer, or circulation indicator, is attached to the water circulating system between the pump and the radiator at any convenient point, assuming the circulation to be from the pump to the cylinder, the cylinder to the radiator, and from the radiator to the pump. A spark gap has no advantage unless placed on the positive side of the high-tension current. As the maker of the coil is the only one knowing the secondary polarity it will as likely be connected wrong as right. Using a three-cylinder coil, it would be necessary to place a gap in each secondary wire between the coil and its spark plug.

PORCELAIN CEMENT

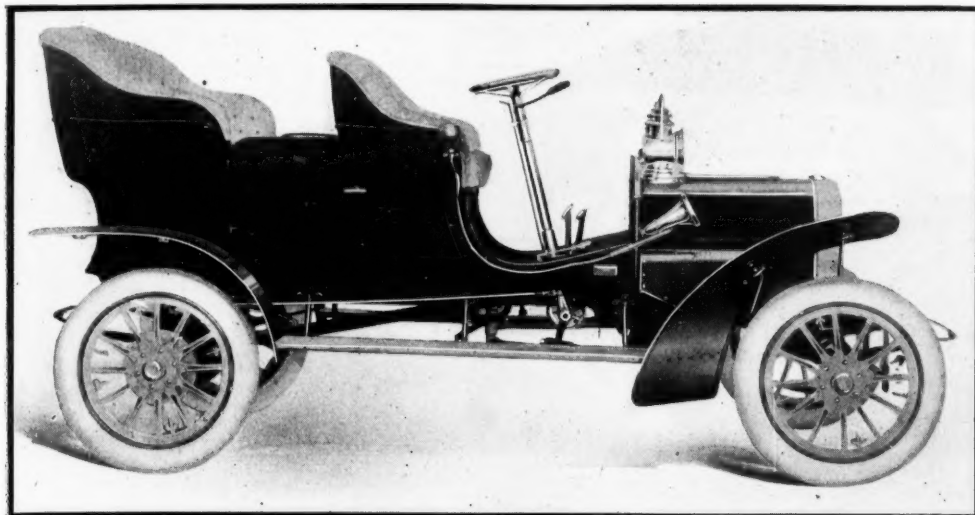
San Leander, Cal.—Editor MOTOR AGE—Will you kindly give me through your columns a formula for making a cement for cementing caps and electrodes to porcelain insulation?—W. A. CLARK.

MOTOR AGE is unable to give a formula for cement that it could recommend. If any readers are familiar with such a formula MOTOR AGE will be pleased to give it publication.



MUFFLER FOR TWO-CYLINDER MOTOR

TWO NEW WESTERN CARS



SIDE ELEVATION OF THE NORTHERN TOURING CAR

The Northern Mfg. Co., of Detroit, is introducing a two-cylinder car for 1905, which will retain most of the features of the 1904 model, with several refinements in design and construction. One style of chassis will be equipped with a single seat, a side-entrance tonneau, or with a limousine body. This car was first shown at the New York show last year, when the intention was to make it a rather small vehicle. Demand proving to be for a larger machine, the motor and car were therefore enlarged.

The wheel base is 100 inches, and the gauge 56 inches. The wheels are 30 inches in diameter and are fitted with 4-inch tires. The weight of the car is about 2,000 pounds. The running gear frame is made of side members of 2 by 3 by 1/4-inch angle steel, with the horizontal member on top, and the 3-inch vertical member inside. The two rear corners are reinforced with 6 by 6-inch angles, 3 inches deep, and the members are pneumatically riveted. The cross members are also of angle steel. The front springs are semi-elliptic, with a single leaf on top, bolted directly to under side of the frame. Rear springs are full elliptic, 36 inches long, and carry the frame on interposed oak blocks. The springs are all 1 3/4 inches wide and of six leaves each. The front axle is a heavy, straight, 2-inch steel tube, with Lemoine style of steering heads. The malleable spring perches are brazed on. The front wheels run on conical roller bearings. The lower end of the steering wheel shaft carries a hardened bevel pinion meshing with a bevel sector having a long hub. The bevel pinion and sector permit adjustment.

The motor is of the double-opposed pattern, set across the front of the frame and said to develop 1 horsepower. The cylinders are bolted to opposite sides of a crank case, which is formed with an integral cylindrical gear housing projecting to the rear, and having its open rear end closed by an aluminum head with a babbitted bushing. This head takes a shaft carrying the final gear of the transmission and is keyed and pinned to the forward member of a sliding universal joint on its rear end. The other joint member is fixed to the final drive propeller shaft, and the whole joint is splined into a cylindrical casing, affording telescoping movement, to allow for the rise and fall of the axles. The crank shaft is set on an inclination of 11 degrees to the top of the

chassis frame, and its prolonged axis is expected to intersect the rear wheel axis when the rear springs are compressed by a full load. No strut rods are used between the rear axle and the chassis frame.

The cylinder bore, finished, is 10 inches long; the pistons are 5 1/2 inches long, and the stroke 5 1/4 inches. The pistons have permanent



THE NORTHERN FLY WHEEL FAN

studs of small diameter in the closed ends, to prevent travel of the outer ring into the counter-bore in shop handling. The cylinders are finished by boring, reaming and grinding, and the pistons by turning and grinding. The pistons have three eccentric rings ground on the peripheries under compression and also on the sides, and are held in a fixed position on the

piston by pins. The pistons are stiffened inside with a wide, thin flange at the pin axis. The pins are tubular, 1 1/2 inches in diameter, are hardened and ground, have four straight oil grooves, 90 degrees apart on the sides, and take a split bronze rod bushing 2 3/8 inches long. The pins are held by screws tapped through the piston bosses inside, and which pass through clearance holes in the lower wall of the pins, bearing against the inside of the upper wall.

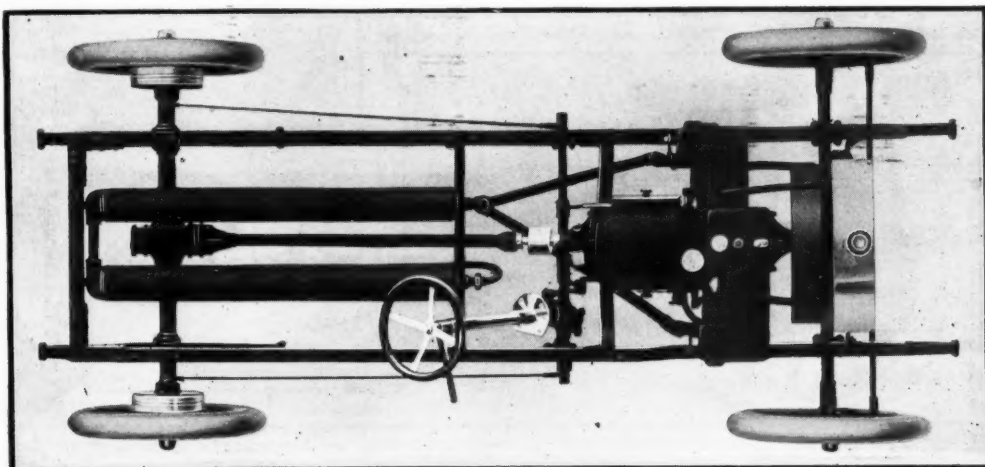
The valves are of gray iron, of 45-degree angle, have steel stems and noise reducing cushions in the stem ends to take the valve lifter impact. The valves are secured to the stems by shrinking and riveting, there being no threads. The connecting rods are malleable castings of H section, 10 inches long from center to center. There is a split bronze bushing in the split crank pin end, with pinching screw for adjustment. The wrist pin end of the rod has a hinged cap and is babbitted, the cap being held by the hinge pin and by a screw tightening against a vulcanized fibre liner, slightly compressible to prevent loosening.

A vertical cam shaft carries the commutator on its top end, a rotary water pump on its bottom end and cams on its center. The radiator is comparatively small and is composed of a removable water tank on top of double copper cooling tubes.

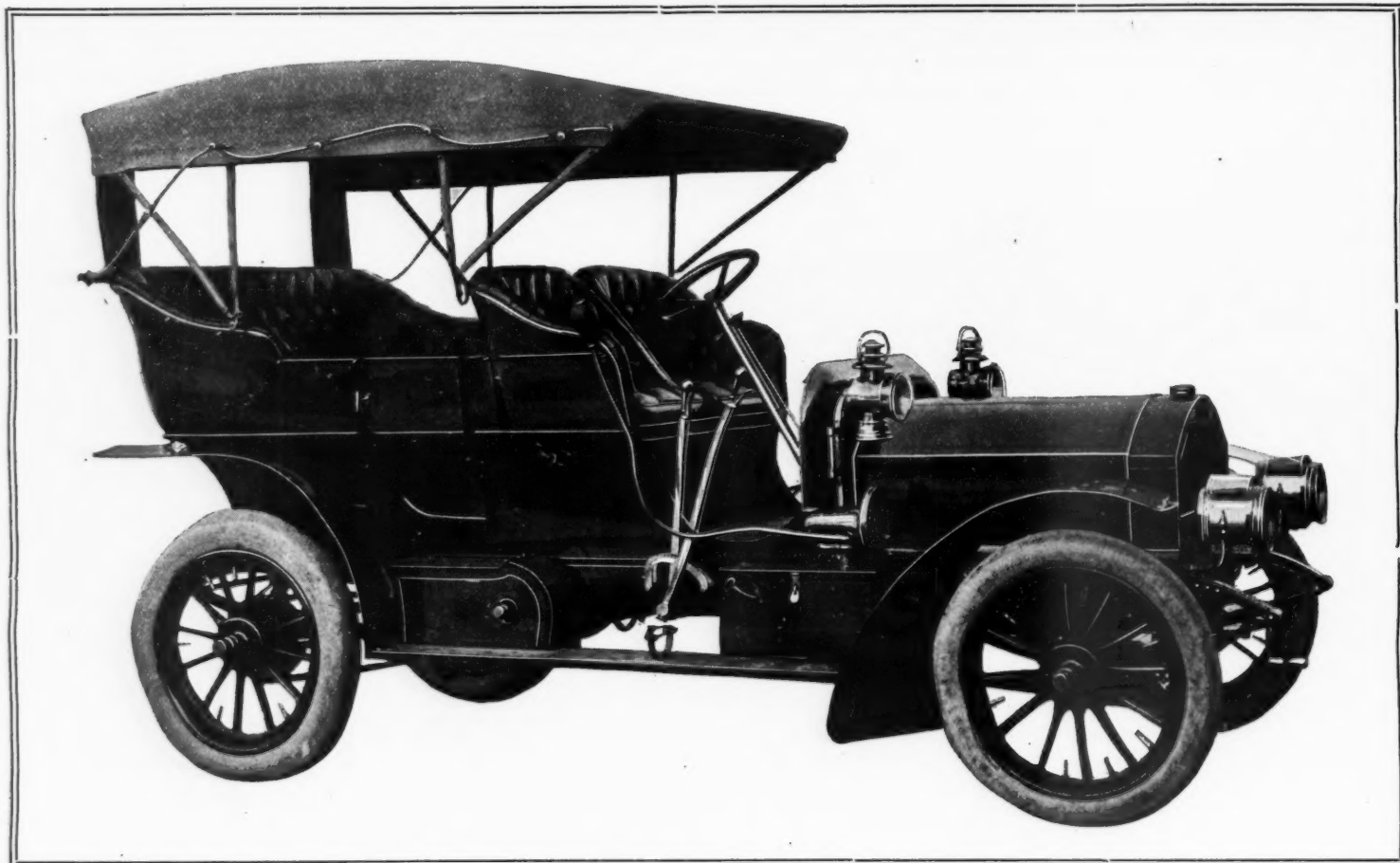
The water circulation is through a hose from the bottom of the radiator to the pump; from the pump—set below the cylinders—through two lengths of wire-lined rubber hose to the bottoms of the water jackets, and from the tops of the water jackets through two bent, wire-lined rubber hose lengths, upward and forward to the radiator top.

The fly wheel is 24 inches in diameter, set close behind the radiator, and its arms are made in inclined vane form, the angles being steep to always afford an air current regardless of the movement of the car.

The car has no copper tube oil leads, and only one sight-feed tube and regulating valve. Advantage has been taken of the inclination of the engine, which gives one crank a slightly greater depth of splash than the other to make the higher crank the one making its under stroke towards its cylinder. The oil level in the crank box is so low that this higher crank does not dip, and this crank and its piston are spray lubricated from the splash of the rear crank which, working in the oil pool, makes its outward stroke under and into the oil pool and so throws its splash, not into its own cylinder, but against the crank case opposite the cylinder. Enough of the splash spray is said to enter both cylinders for lubrica-



PLAN VIEW OF THE CHASSIS OF THE NORTHERN TOURING CAR



THE APPERSON 40-HORSEPOWER TOURING CAR

tion, while neither cylinder gets an over supply. The splash also oils the transmission case. The single sight-feed drip is supplied by crank box pressure in a box tank, formed in the crank box cover, the pressure being taken past a ball check valve co-acting with a slightly scored seat, so as to hold the pressure for only a short time after the engine stops. This single drip of lubricating oil falls directly into the crank-box pool. Heavy grease cups are applied at a few points in the gear requiring infrequent lubrication. The differential housing is filled with oil up to the screw-closed oil hole in one side below the level of the axle sleeves.

The muffler is composed of two cylinders, used respectively as high and low pressure chambers. Each is 5 inches in diameter and 54 inches long. They are placed horizontally side by side under the tonneau floor. The exhaust from both cylinders enters the front end of the left-hand muffler and, going through a rear connection, comes out at the front end of the right-hand muffler.

The transmission gear is a planetary set without internal gears. It furnishes the usual two forward speeds and reverse. The pinions

run on studs riveted into one integral gear sleeve head, and supported in the removable head of the gear case. The gearing is all No. 8 pitch with No. 10 pitch tooth length. The brake bands are lined with vulcanized fiber in iron riveted sections.

The final drive is by propeller shaft to the bevel gear set on the rear axle differential. The gears in the rear axle box are steel, case-hardened, with the thrust taken by hardened roller bearings.

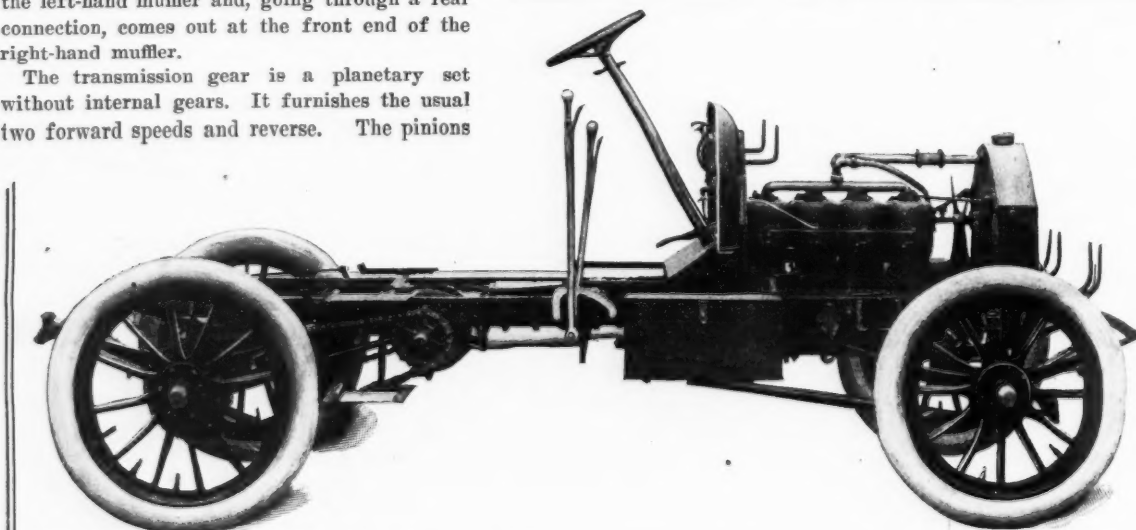
The rear wheel hubs have secured to them internal malleable brake drums, 9 inches in diameter, within which and keyed to the axle are gray iron, babbit lined expanding shoes, pivoted on one side, split on the opposite side and operated by the flattened cam of a rocker. These brakes are treadle applied, and independently screw adjusted.

The car has no vertical hand lever. The steering wheel post has a long sleeve inside of it surrounding the steering shaft and on this sleeve is a bronze speed change lever at the top, and a short rocker arm at the bottom, this being linked to the sliding rod, which actuates the transmission gear brake bands. There are three treadles on the foot-board. That at the right operates the reverse; the middle one the rear wheel brakes, and the large right-hand pedal slides back and forth to regulate the throttle. This one is ratchet and pawl retained or released by a tilting pedal action and spring.

THE APPERSON CARS

Apperson Bros., of Kokomo, Ind., will produce for the coming season three models of four-cylinder chassis, which will be equipped with both side-entrance touring and limousine bodies. The models are respectively of 24, 40 and 50 horsepower, and the 40-horsepower machine may be taken as typical of the line, the other being substantially like it except in size, power and weight, there being but one system of construction.

The main frame of the car is made of pressed steel and no sub-frame is used. Semi-elliptic springs 44 inches long are used in both front and rear. The wheel base of the 40-horsepower car is 110 inches, with 34-inch rear and 32-inch front wheels, fitted with Michelin tires of ample size. The steering is by worm and seg-



SIDE ELEVATION OF THE CHASSIS OF THE APPERSON

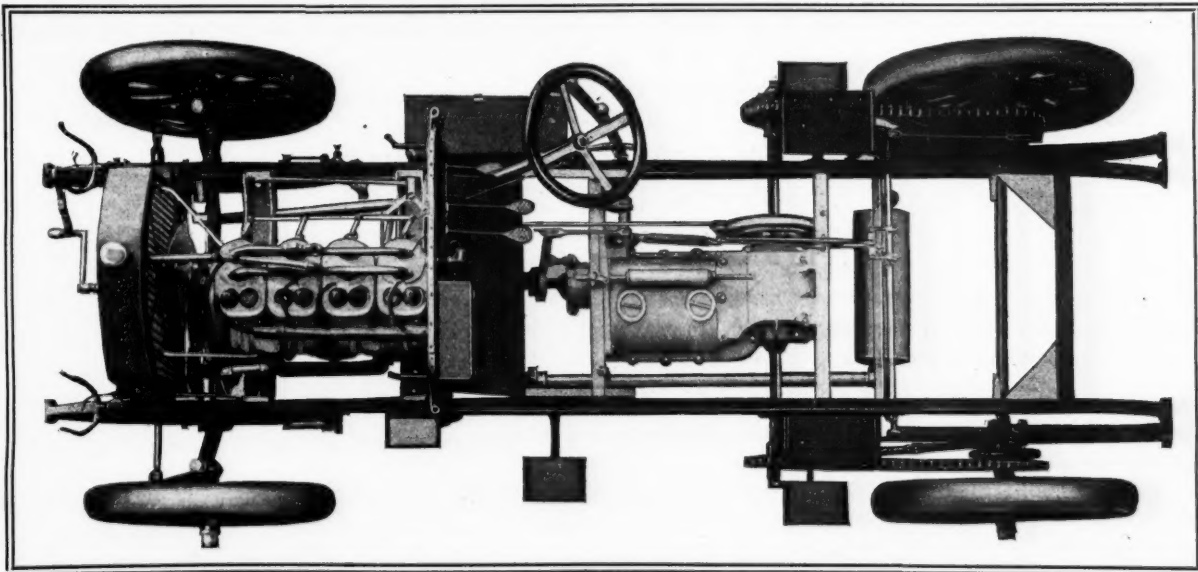
ment, both made of steel and hardened to obviate wear.

The axles are forged in special dies from nickel steel. The wheel bearings are plain bronze bearings, provided with oil pits, which hold oil enough for long runs. The jack shaft bearings and the bearings of the transmission gear are hardened and ground roller bearings.

The motors are equipped with mechanical valves, with the exception of the 50-horsepower model, which is provided with automatic triple-seat valves of large area, this motor being especially built to run at high speed on fast cars. The 24 and 40-horsepower motors are fitted with cylinders cast separately. The exhaust valves and inlet valves will interchange and are made of nickel forgings to reduce tendency to expansion. The valve lifter cages are made of bronze and are interchangeable. The cages and lifters are lubricated from the crank chambers by splash lubrication. The cages can be removed to render the cams accessible. The cam shaft is driven direct from the crank shaft by a steel pinion on the crank shaft and a bronze gear on cam shaft. A specially treated steel is said to be used for the crank shaft, and this is hardened and ground. The connecting rods are drop forgings. The upper bearings work on a hardened and ground pin in the piston head and all moving joints are hardened and ground to render less liable loosening caused by wear. The crank case is made of aluminum, well braced and the hanger boxes are attached to the upper half of the case so that the lower half may be removed for adjustment of crank pin bushings and for general inspection.

The cooling is effected by a rotary pump driven from the cam shaft without gears and the radiator is of the vertical tube type in which the tubes have small radiating washers. The radiator is assisted by a fan. The jump spark ignition set secures its current from storage batteries said to be of special design and able to furnish current for a run of 1,500 miles. Lubrication is by mechanical force feed. The carburetor is of the approved automatic self-adjusting type and is controlled by a pedal.

The clutch is of the compression band type, operating on a bronze drum on the fly wheel.



PLAN VIEW OF THE CHASSIS OF THE APPERSON

It is actuated by a wedge and shipping lever, the shipping lever being operated from a pedal through a collar on the square transmission shaft. There is a flexible connection between the clutch and transmission. The transmission is of the sliding gear type, with direct drive on the high speed. The gears are made of steel forgings, hardened. The differential is enclosed in the gear box and the foot brake operates on the sleeve of the differential case.

Double side chain final drive is used on all three models. There is an emergency brake on each rear hub, these brakes being of the metal-to-metal style.

TRADE LITERATURE

The Chicago Coach & Carriage Co., of Chicago, having occupied its new building on Michigan avenue, announces in booklet to the automobile world that it is now especially equipped for and will pay particular attention to the manufacture of high-class automobile

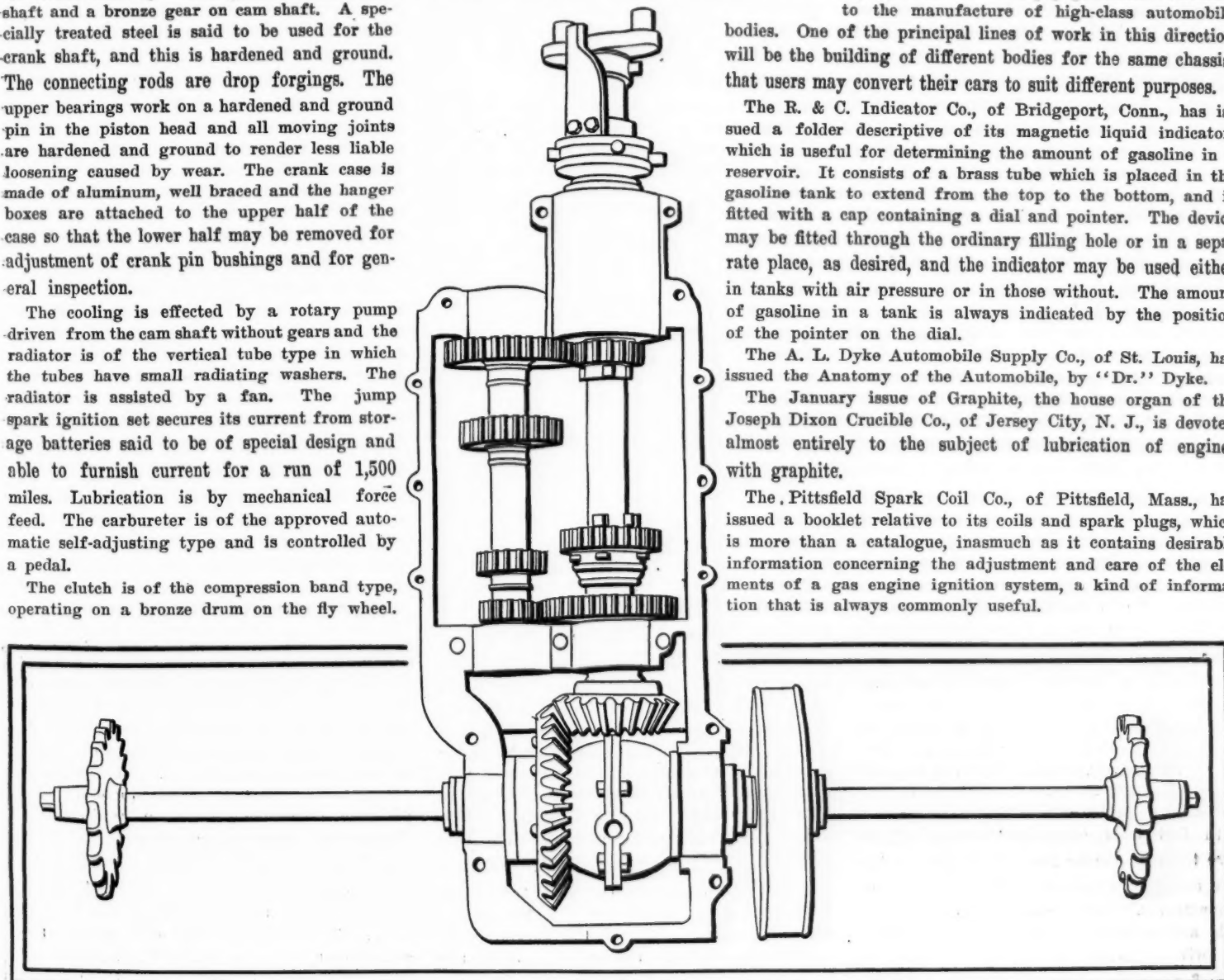
bodies. One of the principal lines of work in this direction will be the building of different bodies for the same chassis, that users may convert their cars to suit different purposes.

The R. & C. Indicator Co., of Bridgeport, Conn., has issued a folder descriptive of its magnetic liquid indicator, which is useful for determining the amount of gasoline in a reservoir. It consists of a brass tube which is placed in the gasoline tank to extend from the top to the bottom, and is fitted with a cap containing a dial and pointer. The device may be fitted through the ordinary filling hole or in a separate place, as desired, and the indicator may be used either in tanks with air pressure or in those without. The amount of gasoline in a tank is always indicated by the position of the pointer on the dial.

The A. L. Dyke Automobile Supply Co., of St. Louis, has issued the Anatomy of the Automobile, by "Dr." Dyke.

The January issue of Graphite, the house organ of the Joseph Dixon Crucible Co., of Jersey City, N. J., is devoted almost entirely to the subject of lubrication of engines with graphite.

The Pittsfield Spark Coil Co., of Pittsfield, Mass., has issued a booklet relative to its coils and spark plugs, which is more than a catalogue, inasmuch as it contains desirable information concerning the adjustment and care of the elements of a gas engine ignition system, a kind of information that is always commonly useful.



THE TRANSMISSION GEAR AND DIFFERENTIAL COUNTER-SHAFT OF THE APPERSON

MANUFACTURING MISCELLANY

Dunlop's Output—The Dunlop Tire Co., of Great Britain, manufactured 1,249,747 complete tires and 303,473 tire covers last year.

Quick Factory Building—Within 20 days in a winter of severe storms the Packard Motor Car Co. has completed an extensive addition to its factory at Detroit, this addition being of brick, two stories high and 326 by 60 feet.

Made Some Money—The Nurnberger Hercules Works, of Nurnberg, Germany, which manufactures motor cycles, made a profit of \$46,705 during the business year ending in October. This is an increase of more than 25 per cent over last year's profits.

Special Great Arrow—The George N. Pierce Co., of Buffalo, has built a special Great Arrow car for A. E. Hedstrom, the wealthy coal mine owner of that city. The car has a combination victoria-canopy top, which is lighter than the regulation canopy, yet encloses the car more tightly.

Working Under License—Under the name of Renault Bros., Ltd., an English concern has been formed and capitalized at \$250,000 to acquire the right to make Renault cars and motors in England. A British concern has also been organized to manufacture the Mors cars according to the patent of the well known French concern. The capital of the English Mors Co. is \$75,000.

Plans Second Factory—It is reported that the Briscoe Mfg. Co., of Detroit, Mich., which intended to start an eastern factory, has leased a tract of land facing on three streets in Newark, N. J., where a three-story brick building will be erected and used as factory and warehouse. The junfor factory will employ between 300 and 400 people and turn out the same line of goods as is made in Detroit—radiators, fenders and other automobile parts.

Has Site Selected—Five acres of land have been purchased on Grand boulevard, Detroit, Mich., by the Matheson Motor Car Co., of Holyoke, Mass., which will move to Michigan in the spring. An office has been opened in Detroit at 910 Hammond building, which is in charge of F. A. Hinchman, formerly connected with the Ypsilanti & Ann Arbor Railroad Co., and who was recently elected treasurer of the Massachusetts concern. Until the plant is removed to Detroit the company's main office will continue to be located in Holyoke.

Left Difficult Field—The Daimler Mfg. Co., of Astoria, L. I., give, as a reason for its abandonment of commercial vehicle manufacture in order to devote its attention to production of American Mercedes touring cars, the inability of users of commercial vehicles to get and keep drivers competent to operate the machines. Nearly all of the delivery wagons were sold in or near the large cities, and C. M. Bouggy, president of the Daimler company, states that the invariable experience of the purchaser was that as soon as a youth had been properly "broken-in" to drive the machine he forsook his job for the more congenial employment of a chauffeur or demonstrator. As the owners of the vehicles could not afford to maintain training schools for private owners and garage keepers, it became apparent that, until equilibrium between supply and demand should be reached

in the chauffeur market the business vehicle field would not be as profitable as that of pleasure cars.

May Start Again—It is said the Baldwin Automobile Co., located in Connellsville, Pa., will resume operations next month after having been closed during the last 3 years.

Big Name Only—The Union Motor Truck Co., a West Virginia corporation organized to manufacture automobile trucks and capitalized at \$500,000, has failed and George D. B. Myers has been appointed receiver by Judge McMichael, of Philadelphia, Pa. The liabilities are fixed at \$6,000 and the assets at \$4,000.

Plant in Allentown—The plant formerly occupied by the Weaver-Hirsch Foundry & Machine Co., in Allentown, Pa., and which was purchased by the Mack Brothers Motor Car Co., of Brooklyn, N. Y., as announced in a December issue of MOTOR AGE, is being fixed up, and when the work is completed the concern will move into the new quarters. The company has a capital of \$300,000 and will build commercial cars for the use of

breweries, transportation companies and concerns which handle a great amount of freight. Large passenger and sightseeing vehicles will also be made.

But Near It—Many people are not aware of the fact that the Mercedes cars made in Germany by the Daimler Motoren Gesellschaft are no longer constructed in Cannstatt, where the factory was located before the fire of 1903, which destroyed it almost entirely. The cars are now made in the new factory at Unterturkheim, a locality about 10 miles from Canstatt.

Combination a Fact—Henry M. Leland, general manager of the Leland & Faulconer Mfg. Co., of Detroit, Mich., has been appointed general manager of the Cadillac Automobile Co., and Wilfred C. Leland, treasurer of the former concern, becomes assistant treasurer. The two concerns, which have been closely identified, are now one. The Leland & Faulconer Co., which makes engines, employs 400 men, while the automobile concern employs 600. It is reported that the Cadillac people intend to make 4,500 cars this year, of which 4,200 will be runabouts and small touring vehicles and 300 of the large touring style.

AFFAIRS OF THE CLUBS

Hare and Hounds Chase—A hare-and-hounds chase, with entries limited to club members, is being promoted by the Automobile Club of Philadelphia. The club recently added eight names to its membership roll, which now totals nearly 200.

Italy Interested—The Automobile Club of Italy has made an arrangement with the war department of Italy to hold a series of tests during the winter, the principal object being to show the advantage of using motor cars for conveying supplies to the mountain posts.

Hoosiers Seek Relief—At a meeting of the Marion Automobile Club, of Marion, Ind., a few days ago it was decided to send an invitation to all other clubs in the state to send delegates to Marion to discuss a bill to be introduced in the legislature to secure more equitable automobile measures.

Trade Men in Club—The Automobile Club of Detroit was organized January 7 and thirty-five local motorists joined the new organization. William E. Metzger was elected president; S. D. Waldon, vice-president; E. H. Broadwell, secretary and Roy D. Chapin, treasurer. The five members of the board of directors are: James Couzens, Roger Sullivan, W. G. Morley, C. J. Moore and W. C. Rands. The basement of the Russell house will be fixed up for clubhouse purposes.

International Motor Cycle Body—The International Association of Motor Cycle Clubs was organized in Paris on December 21, when representatives from German, Austrian, Belgium, Danish, English and French motor cycle associations met. It was decided that only one club could represent a country where there are several motor cycle clubs. The headquarters of the new organization will be in Paris. Each club must name a delegate for the two meetings, the first one being held in Paris in December and the second one during the week of the international motor cycle race in the country where the event takes place. It was decided that unless a club sends a delegate the club will

not be permitted to vote through the medium of another club's delegate. The date of May 14 was selected for holding the cup race. A. de Lahaussie was elected president.

Successful Banquet—The third annual banquet of the Automobile Club of Syracuse held at the Yates house was the most successful event ever given by the club. Interesting talks were given by President Brown, Mayor Fobes, President Whipple of the A. A. A., Congressman Driscoll and Judge Thompson.

Has Volunteer Corps—Following the example of the Automobile Club of Great Britain and Ireland and of the Automobile Club of Austria, the German Automobile Club recently decided to form a volunteer corps of automobilists, which is to become a regular section of the German army in time of war.

Has Waiting List—Although the membership limit was some time ago raised from 400 to 500, the Automobile Club of America now has a waiting list of twenty-six names. Members elected at the last meeting include Charles W. Morse, James B. Wilson, Morton F. Plant, Jesse Wasserman, Marshall Dodge, John W. Cox and Robert Fairburn.

Road Race Planned—Several members of the Chicago Automobile Club contemplate forming a movement among the members to organize a road race from Chicago to Milwaukee, to be run Decoration day. The object of the race is to interest the country people in automobiling and also bring about the extension of Sheridan road to Milwaukee.

After Officers' Scalps—It is said a number of French motorists are starting an agitation among the members of the Automobile Club of France to force out of office President Baron von Zuylen and other officers, including Rene de Knyff. These agitators claim the baron is a Dutchman and de Knyff is a Belgian and that Frenchmen should hold office. The agitators are said to be the owners of the new paper, Les Sports, at whose financial head is Camille Blanc, the millionaire horseman.

GARAGE

GOSSIP

New St. Louis Concern—The Capen Motor Car Co., which recently organized in St. Louis, Mo., has secured the agency for the Locomobile.

Joined Brunn Forces—Nelson P. Baker, formerly manager of the Alex Weller Co.'s automobile branch in Buffalo, will manage the automobile department of the Brunn Carriage Co. this year. The Brunn company has taken the Buffalo agency for the Stevens-Duryea.

Changed Name—The Automobile Exchange, at 1302 Michigan avenue, Chicago, has changed its name to that of the Holmes-Schmidt Motor Co., and will handle the Welch and Ford cars in the automobile line and the boats made by the Western Launch & Engine Co., of Michigan City, Ind.

Branch of Philadelphia—R. M. Owen, sales manager for the Reo Motor Car Co., returned to New York from Philadelphia last week and announced that a branch had been arranged for in that city under the management of F. W. Stockbridge. The new salesroom will be in the Mink arcade on Penn square, next to Wanamaker's.

Will Enlarge Place—Stoltenberg & Reimers, automobile dealers in Davenport, Ia., have sold out to F. L. Bills and P. C. Petersen, who have formed the Davenport Automobile Co., which will be incorporated for \$10,000. The garage at 115 and 117 Harrison street will be used as headquarters for the concern, which has secured the agency for the Northern and will add several other makes.

Out for Himself—E. W. Swanbrough, who has been connected with the agency of the Rambler cars and bicycles, in Denver, Colo., during the last 6 years in the capacity of manager, has become associated with Judge E. A. Colburn and this has resulted in the formation of the Antlers Automobile Co., which will have the exclusive agency in Colorado for the Ford. Until a special building is built the concern has taken headquarters at 1646 Broadway.

On Chicago's Row—The first floor of the building at 1321 Michigan avenue, Chicago, has been leased by H. Paulman & Co., agents for the Pierce. The front part of the floor, which is 35 feet wide and 135 feet long, will be used as salesroom, while in rear will be fixed up for a repair shop. The building at 285 and 287 North State street will be used as garage and warehouse. The first two 1905 model Pierce cars were received a few days ago. One is a Great Arrow and the other a stanhope. Samples of the limousine, opera coach, suburban, open and closed landaulet and brougham are expected.

Big Capital Increase—The New York Sporting Goods Co., of New York, one of the oldest concerns in the metropolis connected with the sporting goods and bicycle trade, have recently increased their capital from \$5,000 to \$100,000 and decided to start an automobile department, which will become the feature of the company. An extensive line of accessories and parts will be taken in. About May 1, the building located at 17 Warren street will be entirely occupied by the concern. Charles Richards, formerly with E. J. Willis, will probably have charge of the automobile department. The officers of the



MORRIS FOURNIER AND MR. ASHLEY AT THE END OF THEIR OLDSMOBILE TOUR OF EUROPE

New York Sporting Goods Co. are: P. R. Robinson, president; Richard Nelson, vice-president; James E. Murray, secretary and treasurer.

Garage in House—The oldest bicycle dealer in the state of Tennessee, J. S. Roller, of Nashville, will open a garage in his own house, which adjoins his present location at 179 North College street. J. L. Hedge will be manager of the garage.

Has Three-Story Building—A three-story building at Cherry and Fifth streets, Reading, Pa., has been purchased by the Reading Automobile Co., which has the agency for the Winton and Oldsmobile. The structure will be reconstructed into a modern garage and repair shop.

Appersons in New York—The building at 66 West Forty-third street, New York, has been leased by the Apperson Bros. Automobile Co., of Kokomo, Ind., and will be used as a branch house, which will be in charge of L. A. Hopkins, formerly treasurer of the Brooklyn Automobile Co., which occupied the building.

Has New Building—The three-story brick building at the corner of Tilden street and Genesee avenue, Saginaw, Mich., has been purchased by the Norris Automobile Co., which occupies part of the building, which is divided into three parts. One room will be fixed up into a repair shop and electric charging plant, while another will be arranged as a salesroom.

Americans in Canada—It is reported that the Canada Cycle & Motor Co., of Toronto, Canada, which is the largest concern in Canada handling automobiles and bicycles, has contracted to represent the following eight different American cars: Autocar, Ford, Mitchell, Packard, Peerless, Pope gasoline and electric cars, Stevens-Duryea and the Thomas. The Automobile Supply Co., of the same city, will handle the Winton.

Has Mixed Line—The Evans Automobile Co., which was recently formed in Columbus, O., will secure the agency for a number of touring cars and runabouts, besides handling motor cycles, bicycles and a line of accessories used by motorists and bicycle riders. The building at 63 East Gay street will be arranged so that automobiles can be stored therein and repaired. It is the intention of the concern, which is capitalized at \$30,000, to start building a new motor car. The officers of the concern are: J. C. Morrison,

president; Smiley Caldwell, vice-president; George W. Smith, secretary; Charles E. Leist, treasurer, and William E. Evans, general manager.

Southern Automobile Row—An "automobile row" is being made in Nashville, Tenn. Four salesroom and repair shops are now within a block of each other and the following cars are represented: Autocar, Mitchell, Oldsmobile, Stanley, Wayne, White and Winton.

Michelin Will Fight—E. D. Winans, the new agent for Michelin tires in this country, says the house of Michelin will send a lawyer to this country within the next couple of weeks to take up the fight against the G & J people, who are at present suing Michelin for alleged infringement of the clincher tire patent.

A New Boston Garage—The Boston branch of the White Sewing Machine Co. has at last secured a new garage. Several sites have been selected, but all had some little defects. Now, however, Manager Lowe has secured a place on fashionable Newbury street, which is to be thoroughly remodeled and will be ready for use by the first of March.

Coey's New Store—C. A. Coey & Co., Chicago agents for the Thomas Flyer, have moved into new quarters at 1323-1325 Michigan avenue, occupying the first floor of the building, which gives a floor space of 7,000 square feet. The new place will be used as salesroom and stock room, while the building at 5311 Cottage Grove avenue will become the repair shop and garage.

Good Fire Apparatus—In almost every garage there is some emergency apparatus for fire and among the very best is that in the Michelin tire place in New York. It is the idea of A. L. McMurtry and consists of a heavy blanket hung at a convenient place where it can be pulled down at a second's notice. It is a well known fact that water has little effect on gasoline fire, but the blanket will smother a blaze instantly.

Change in Auburn—Beginning the new year the firm of Martin & Mabey, of Auburn, N. Y., was succeeded by the Auburn Automobile Co., Mr. Martin retiring and George H. Leonard entering the concern. The new company will conduct a garage which will be fully equipped. They will be the Cayuga county agents for the Oldsmobile, Franklin, Pope-Toledo, Pope-Hartford, Pope-Tribune, Peerless and Columbia gasolines and the Columbia, Waverley and Buffalo electrics. Automobiling has gained quite a foothold in Auburn and it is thought that the new concern will do a large business.

Cars and Supplies—The Iowa Automobile and Supply Co., recently formed in Des Moines, Ia., by C. R. Prouty and F. S. Duesenberg, has taken the premises at 407 to 411 Fourth street to do business. Duesenberg has been in the bicycle and automobile repairing business for many years and has also made gasoline engines, while Prouty is a member of the wholesale grocery firm of C. R. Prouty & Co. The new concern has secured the agency for the Rambler and Marion cars and will also handle a line of supplies. An extensive repair shop and storage station will be supplementary.



INTRODUCING A NEW PIERCE GREAT ARROW TO LINCOLN PARK, CHICAGO

FROM THE FOUR WINDS

Gave Boat Away—The motor boat Napier, which was purchased by a wealthy Frenchman, has been donated by him to the French navy minister.

Importations Doubled—Last year exactly 602 foreign-made automobiles were imported into the United States. Their value, according to the customs appraisers, was \$2,209,492, or an average of \$3,670. During 1903 only 375 foreign cars were imported.

Buying Postal Cars—While the Russian postal authorities have ordered a number of 6 and 8-horsepower German postal automobiles, the Swiss government has voted a special sum for the postal department to purchase two new cars to be used for distributing and collecting mails.

Not Much on Exports—During the month of November 237 foreign-made cars were imported by Great Britain. Their total value was \$484,652, or an average of \$2,045 per car. During the same period ninety-six English-made cars were exported, their value being \$146,884, or \$1,530 each. This was the best month of exportation England had during the 11 months in 1904.

Bald's Chances—E. C. Bald was recently asked what his chances would be in the Bennett race, in which he expects to compete with a Pope-Toledo racer. "I think I will have a chance," he is reported to have said. "I will have a good machine and will have studied it over a year. I know all the mechanism now and have spent some time in driving the car. So you see I will not enter the game green."

Easy for the Automobile—An unknown motorist went to the rescue of two policemen in Buffalo, N. Y., Sunday morning and enabled them to arrest three men who, except for the car, would have escaped. The motorist stipulated at the outset of the chase, of course, that he himself would be immune from a charge of speed law violation. Sergeant Cullen, of the Buffalo park force, discovered three men in the act of stoning squirrels. That doesn't sound like a very serious offense, but the Buffalo police have strict orders to protect the animals, which make their home in the park, and Sergeant Cullen went for the trio on the run. They saw him first and jumped into a carriage. As they were leaving Cullen and a patrolman who had come upon the scene far behind, the motorist arrived. He picked up the cops without stopping and then set out on

a stern but not long chase after the carriage. The three men lashed their horse to no purpose, the motor car rapidly overtaking them. They finished their ride in the patrol wagon.

Ignored the Bills—Several automobilists who refused to pay the fines imposed upon them by Radnor township, Pa., officials for not sounding their horns at every road crossing had the satisfaction of having the Montgomery county grand jury ignore the bills.

Motors No Bother—All of the several motorists who started on trips through Europe in order to test 1905 motor cycles have returned to Paris. The hardest matter in connection with these tests was to get through with the customs officers in the various countries traversed. The distance most of the motorists travelled was from 3,200 to 3,600 miles.

Cheap Enough—Another test was made recently by Leon Serpollet in order to demonstrate the cheapness of running a motor car with heavy oil. Eleven persons were taken in a 20-horsepower omnibus to Versailles and return to Paris, the total distance being 64 miles. The average speed was 19 miles an hour and the total consumption amounted to 126½ pints of heavy oil, costing \$1.44. The expense per passenger was thus 13 cents for the trip.

Locomotives Are Easy—C. P. King, of the White Automobile Co., of Los Angeles, Cal., recently took a ranch owner from San Bernardino to Victor, over the Cajon pass, which has an altitude of 4,000 feet and over which no motor car has gone previously. After taking the traveler home, King returned to San Bernardino, covering the entire distance of about 52 miles in a little over 3 hours. On the return trip King raced for 9 miles with two engines of the Santa Fe road. Most of the time the automobiles kept on even terms with the locomotives.

Motor Cycle Records Fall—The Italian motor cyclist, Giuppone, broke a score of world's track motor cycle records on the Princes track, Paris, a fortnight ago. He rode a single-cylinder Peugeot weighing 110 pounds, covered 55½ miles in 1 hour, which is almost 2 miles more than the former mark, and rode 100 kilometers in 1:06:36%, equal to an average speed of 56 miles an hour. A few days later Anzani, with an Alcyon motor cycle, broke all records for the class of machines called "quart de litre," that is machines whose motor has the capacity of about

.527 pints. In 1 hour 46¼ miles were covered, while 100 kilometers were covered in 1:22:28%, breaking Lanfranchi's record by 41¼ seconds.

Orders Cars for Colonies—The German de Dion-Bouton Co. recently received an order from the foreign office of Germany to send fifteen cars to German East Africa.

They'll Change—Local papers from Melbourne, Australia, say that the society people from the leading city in Australia are very slow in taking to motoring and that most of the cars which have been sold were bought by common people.

Who Got It?—In their Christmas wishes some members of the business and professional men's gymnasium class of the Y. M. C. A., of Keokuk, Iowa, asked for red-top boots, a dozen for checks of \$10,000 or more and seven for automobiles. One wished for a calf.

Severe in Europe—The European chauffeur of Clarence Gray Dinsmore, the noted American automobilist and delegate of the Automobile Club of America, was recently sentenced to serve 14 days in jail and pay \$560 damages for having overturned the cart of a farmer in Europe last summer.

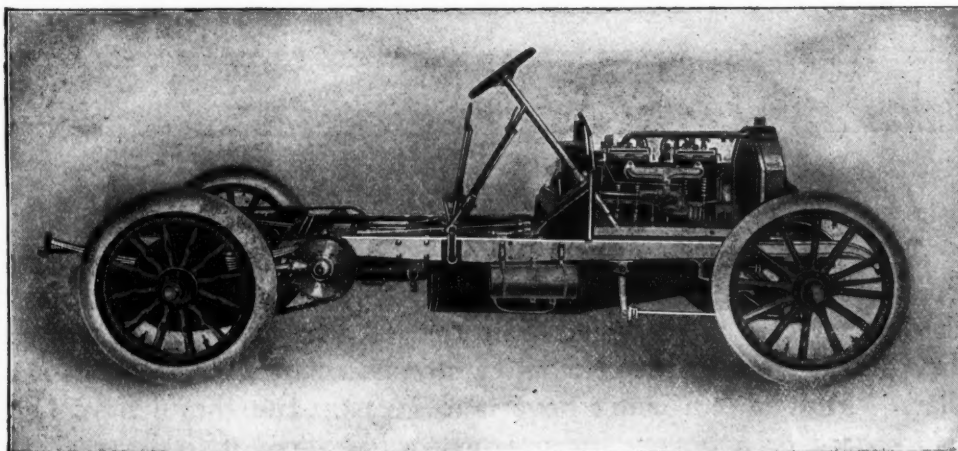
Big Damage Suit—Suit for \$15,000 damages was recently brought against George and William Francis, of Independence, Kan., by Mrs. Calista J. Brock. It is claimed by the defendant that while driving their car they refused to give her the road and that in consequence the horse she was driving was frightened and ran away, causing the buggy to be smashed and the occupant to be severely hurt.

Quaker Tags Red—The official automobile tag of the Quaker City for 1905 is red with white figures. When the office of the bureau of boiler inspection was opened January 3 the first man in line was Colonel James Elverson, Jr., of the Philadelphia Inquirer, who secured tag 101. The clerks in charge of the automobile licenses did a land office business during the first day, no less than 213 tags having been handed out before the office closed.

May Ruin a Street—Philadelphia automobilists and laymen alike are "viewing with alarm" the preparation being made by the local Rapid Transit Co. to lay a double line of tracks on Broad street, the city's crack highway. Such a desecration of the street, the rank and file assert—and they include every citizen but those in politics or attaches of the company—should not be allowed, and merchants, bankers, horsemen, automobilists and even mechanics are enlisting in the fight against the traction company, which secured the franchise free at a midnight seance when Stone was governor of the state 2 years ago. Broad street is the automobile boulevard of the country par excellence. It is about 14 miles long, asphalted for the greater part of the distance and is as wide as two ordinary streets. It is the Quaker City's "parade street," and trolley tracks on it would jolt the sensibilities of even those staid Quakers who have been wont in times ago to meekly "turn the other cheek." At its present rate of growth, the opposition will make things warm for the tractionites before the tracks are laid and the street actually put out of business.

"THE ARISTOCRAT OF AUTO CARS"

FIAT



The "FIAT" Exhibit at the Importers' Automobile Salon will embrace one of the most magnificent collections of high grade Cars ever seen in America, including:

A Rothschild Limousine of 16-horsepower, side entrance.

24-horsepower Touring Car with swivel front seat.

60-horsepower Car with semi-racing body, detachable tonneau, and racing tail-piece.

24-horsepower Side Entrance Car with extra long body.

Turin Coupe of 16-horsepower, built by our own carriage builders at Turin.

Rothschild Double Phaeton of 24-horsepower with side entrance and Victoria top.

Extra long Landaulette of 24-horsepower, richly furnished and one of the most beautiful cars of its kind ever exhibited.

And the 1905 model Chassis which has just been exhibited at the Paris salon. This Chassis will show all the new and important features of the 1905 "FIAT" Cars.

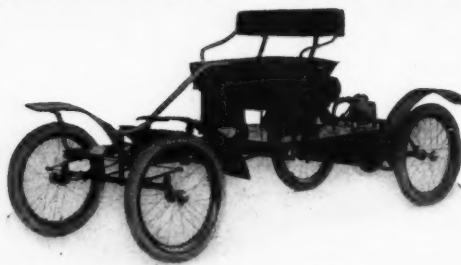
"FIAT" Automobiles will be displayed exclusively at the *Importers' Automobile Salon*, at Herald Square Exhibition Hall, and *not* at Madison Square Garden.

HOLLANDER & TANGEMAN

3 and 5 West 45th Street, New York

Sole American Agents

Licensed Importers under Selden Patent



Buckboard, \$375

...THE... BUCKBOARD SIX-TENTHS

A big dealer in Western New York said to us recently:

"If I had carried your Buckboards last year I'd have made \$10,000 more than I did on the year's business. Six in every ten people who talked motor cars to me couldn't be sold because the price was too high. They didn't want to invest from eight hundred and fifty to four thousand dollars. Most of 'em didn't have it to invest. But they'd have bought a Buckboard or a Surrey because they could afford it."

There's the point.

The money in the Buckboards can't be gotten with any other line. They're unique.

Simple, reliable, speedy and inexpensive, the Buckboards will appeal to the "six in ten who couldn't be sold a higher priced car."

That's the Buckboard Six-Tenths.

Waltham Manufacturing Co.

Members of Association of Licensed Automobile Manufacturers

WALTHAM,

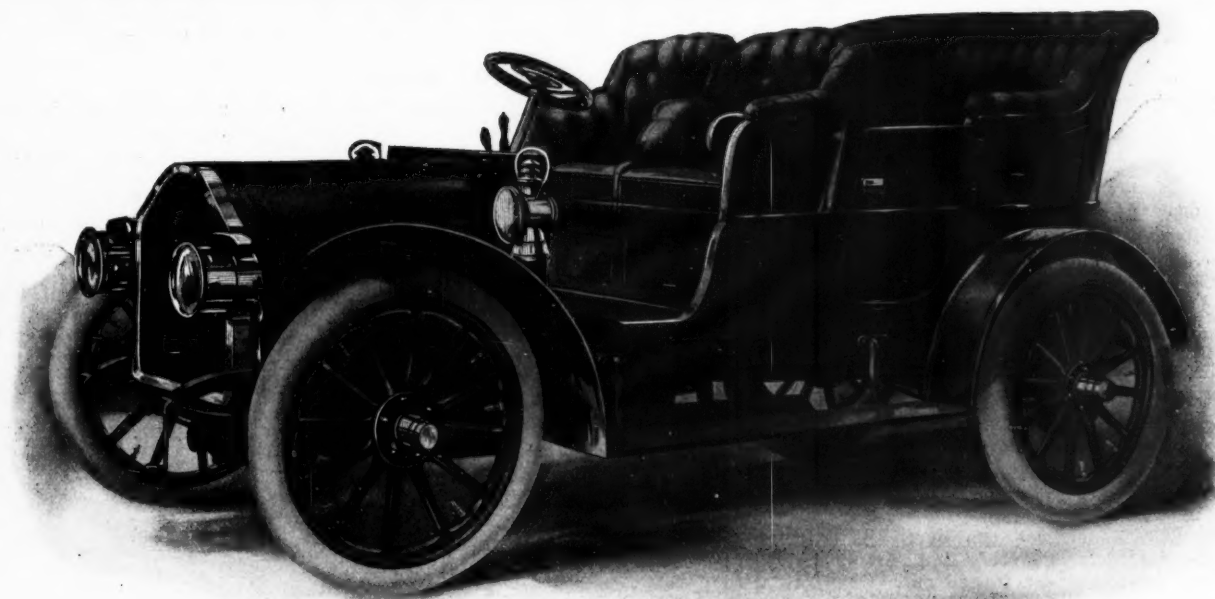
MASS.

Sales Office for New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Florida and Georgia 44 BROAD ST., NEW YORK CITY



Tonneau, \$525

Some Things for You to Remember



18-20 Horse Power

Price, \$2,250

1. That air-cooling cuts out just about one-half of the motor complications.
2. Provided it's proper air-cooling.
3. That proper air-cooling, for an engine of more than one cylinder, *absolutely requires* a vertical tandem type, with face.
4. That the best (acknowledged) air-cooled motor is a 4-cylinder vertical tandem, with positive air-blast from a powerful 4-bladed fan.
5. That this type of motor is used in *all four models* of the Orient Touring Cars.
6. That the Orient Models E and F *are the only cars of 16 horsepower* (or less) on earth which have 4-cylinder, vertical tandem engines, direct drive, and sliding gear transmission.
7. That others admit these engineering features are the best, by putting them on their higher-powered cars.

REMEMBER ALSO

8. That the Orient Touring Cars are the finest designed cars in America.
9. That they are pronounced equal in appearance to the handsomest imported cars.
10. That they look as if they cost \$5,000 or \$6,000, when as an actual fact they cost \$1,500, \$1,650, \$2,000 or \$2,250.
11. That the de Luxe has positively the finest body finish and the richest upholstery put into any regular line car built—American or European.

THE ORIENT LINE

TOURING CARS

Touring Runabout, Model E, 16 H. P.	\$1,500
Light Touring Car, with Tonneau, Model F, 16 H. P.	1,650
Touring Car, Model G, 20 H. P.	2,000
Touring Car, Model de Luxe, 20 H. P.	2,250

BUCKBOARDS

Buckboard, Model A, 4 H. P.	\$375
Surrey, Model B, 4 H. P.	450
Runabout, Model D, 4 H. P.	475
Tonneau, Model D, 4 H. P.	525

Waltham Manufacturing Co.

Members of Association of Licensed Automobile Manufacturers

Sales Office for New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Florida and Georgia.....44 BROAD STREET, NEW YORK CITY

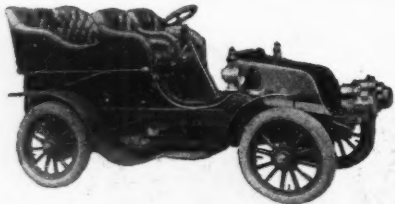
WALTHAM, MASS.



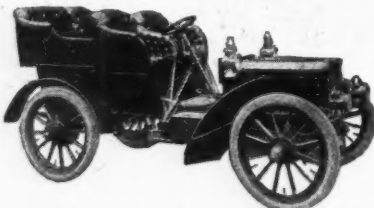
DR. DYKE

has been selling automobiles since 1899. He was the first to advertise a second hand automobile in any trade paper in America. **Record:** not one displeased customer. **My method** of buying and selling is not as some advertise; it is different—yet simple. I buy or offer for sale on a commission **only machines which I inspect and find are genuine bargains.** If I can't get a thorough inspection and know that it is a bargain, I will not sell it or buy it. When you see a machine advertised by me, read the description—you can rest assured the machine will be exactly as represented. **Descriptions and photos furnished to interested parties.** NOW IS THE TIME TO BUY. DON'T WAIT UNTIL SPRING. The demand then will be greater than the supply. **A few of my Best Bargains—Better be quick.**

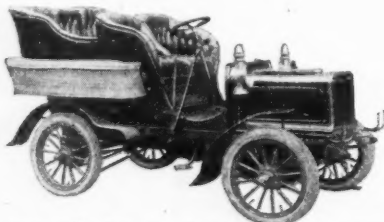
Use St. John Solid Rubber Tires—They fit Glincher Rims.



WINTON 1903 Model, with extra large tires on rear. practically same as 1904 model, with exception of few minor changes. This machine was purchased latter part 1903 and is in very best condition. **PRICE.....\$ 650.00**



PEERLESS 1903 Model, not run over 400 miles, two-cylinder, received from factory first part 1904. About the last two-cylinder car turned out. Complete with two gas headlights, oil side lights. Painted dark green. A beautiful, powerful car. Cost \$2,800. **PRICE.....\$1,090.00**

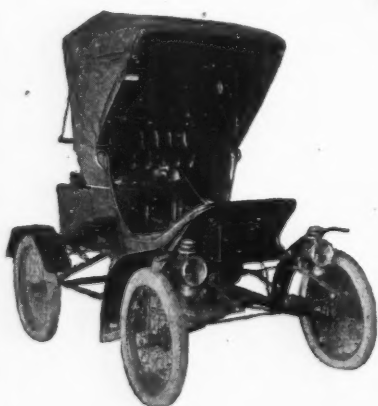


TOLEDO 1904, two-cylinder, good condition as new, looks new—not run over 500 miles. Painted dark green with yellow running gear. Baskets and lamps included. Cost \$2,000.00. **PRICE only.....\$ 990.00**



PREMIER 1905 Model. Received from factory recently. 16-horsepower, four-cylinder air-cooled. Brand new with exception of having given about half a dozen demonstrations. Shifting searchlight and oil lamps. Cost \$1,400.00. **PRICE.....\$1,050.00**

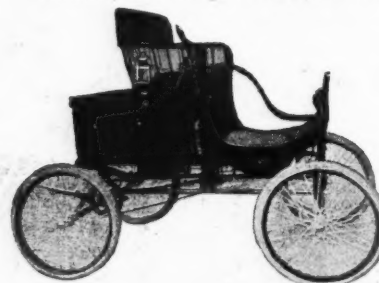
CADILLAC, Model A, with tonneau, lately overhauled and painted. Looks like new and is in just as good running order as a new machine; has a \$35 headlight. **PRICE.....\$ 498.00**



WHITE STANHOPE, steam, flash boiler. No. 4—one of the last Stanhopes turned out. Machinery and all parts in fine shape. Tires in good order. Upholstering shows some wear, otherwise in fine condition. **PRICE..\$ 350.00**

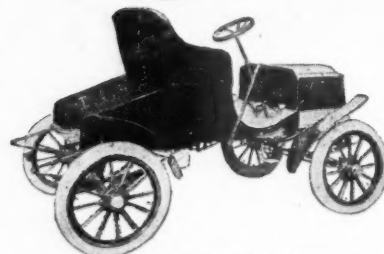
PEERLESS 1904 Model, four-cylinder. Cost \$3,800.00. Thoroughly overhauled and repainted. Starts on compression. Gear and all parts in good order. Extra large tires in fine shape. Top and full set lamps and baskets. **PRICE.....\$1,950.00**

OLDSMOBILE 1903 Model, overhauled and put in fine condition. Double tube tires, latest wood artillery wheels, fine shape. **PRICE.....\$ 298.00**



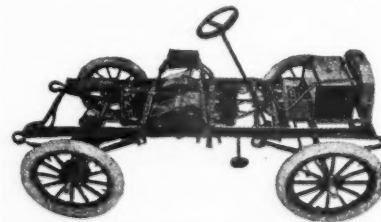
MOBILE steam runabout in very best condition. **PRICE.....\$ 225.00**

"GALE," if none of the above suit you, buy a Gale, 8-horsepower, single cylinder runabout, 1,000 pounds, improved transmission. Brand new. **PRICE f. o. b. factory.....\$ 499.99**



CHASSIS. If you are not yet satisfied, then it's up to you to purchase one of my chassis (supplied me by a leading auto mfr.) and put a body on to suit your own idea—or I will supply body if you prefer. These cars are powerful, first-class cars at moderate price. Engine is double opposed with three-speed sliding gear transmission with clutch in flywheel. This chassis comes complete with square hood and double tube tires. Everything is complete and nothing is attached to the body, making it an easy matter to put on body and start off. Remember this chassis is made for me by a leading manufacturer and is a first-class, guaranteed product. Side Door or rear door tonneaus. **Note prices:**

Remember I am in the Auto-mobile Supply Business, having originated the first auto supply business in America, also issued the first catalogue on Auto Supplies. **My Prices** on Lamps, Horns, Tires, Chains, Caps, Goggles, Oils, Wire, Packing, and a thousand other things. My catalogue is now in press. Send for Circular.

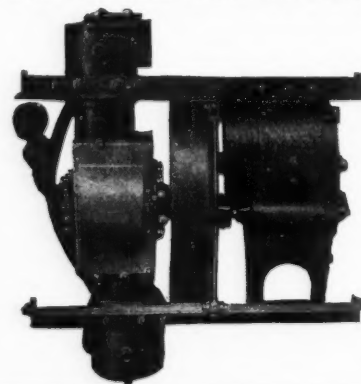


12-Horsepower complete, less body.....\$ 750.00

16-Horsepower complete, less body..... 850.00

20-Horsepower complete, less body..... 1,075.00

Delivery Wagons made from this chassis fitted with St. John Solid Cushioned Rubber Tires is a good proposition.



IF YOU ARE STILL NOT SUITED, then possibly by putting a new engine and transmission in your present car will answer. I have the Engines from one to four-cylinder, water and air-cooled, vertical or opposed or horizontal; auto and marine, carburettes and everything up to date.

I will await your decision with interest. If I can't suit you, then no one else can—maybe an airship would please you.

A. L. DYKE, 3939 OLIVE, Formerly 311 Pine, **St. Louis, Mo.**

NOT WITH A. L. DYKE AUTO SUPPLY CO.
Read Dr. Dyke's Books on Autos.

You Want an

OLDSMOBILE

—Ten Sound Reasons Why

1. Oldsmobiles have more reliability, more comfort, more value received and better appearance. We build by thousands to give these qualities at a low price.

2. Our guarantee is the broadest and our care of customers the best.

3. We build the largest quantity and the greatest variety of light cars. Some one of them is sure to fill your requirements.

4. "Oldsmobile" spells "economy." Maintenance cost minimum. Ask an Oldsmobile owner.

5. Mt. Washington and Eagle Rock hill again proved Oldsmobile hill climbing qualities. You take steep grades on high gear with all our new cars.

6. Oldsmobiles go wherever you see them, and you see them wherever you go.

7. Business and professional men are our largest customers. To them the Oldsmobile means a saving of at least two hours time per day.

8. The only light car to receive gold medal at the St. Louis Fair. We got two of them. Oldsmobile merit is universally acknowledged.

9. Twenty years' experience and unequaled manufacturing facilities make the Oldsmobile the best thing on wheels.

10. "As good as the Oldsmobile" is often heard. What could be better?

This Line Can be Seen at the New York Show

7 H. P. Regular Runabout . . .	\$650	20 H. P. Touring Car . . .	\$1400
7 H. P. Touring Runabout . . .	750	Light Delivery Car . . .	1000
10 H. P. Light Tonneau . . .	950	Heavy Delivery Car . . .	2000

For specifications of any of these Cars address

Olds Motor Works, 1300 Jefferson Avenue

Member of the Association of Licensed Automobile Manufacturers.

DETROIT, U. S. A.

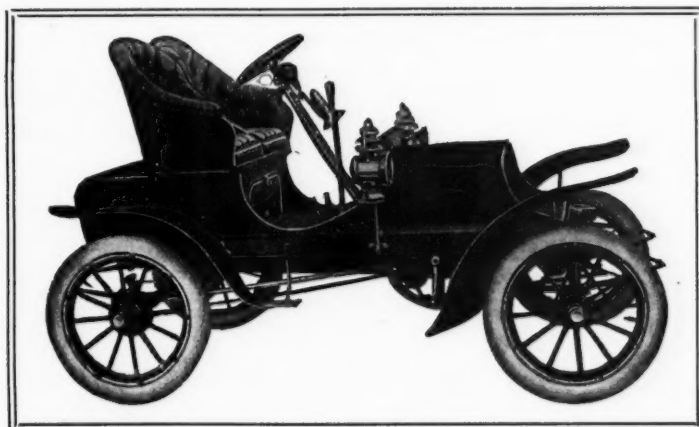
GOODRICH CLINCHER AUTOMOBILE TIRES AWARDED



GRAND PRIZE HIGHEST AWARD

Another tribute to Goodrich Superiority
Goodrich records prove Goodrich Goodness

FRANKLIN



Gentleman's Runabout; 12 H. P.; 40 miles an hour; \$1,400

A water-cooled car can never, without great expense, have the same ability as the air-cooled Franklin, because water cooling adds weight, complication and friction, all of which use up power, hamper ability and add frightfully to the maintaining expense.

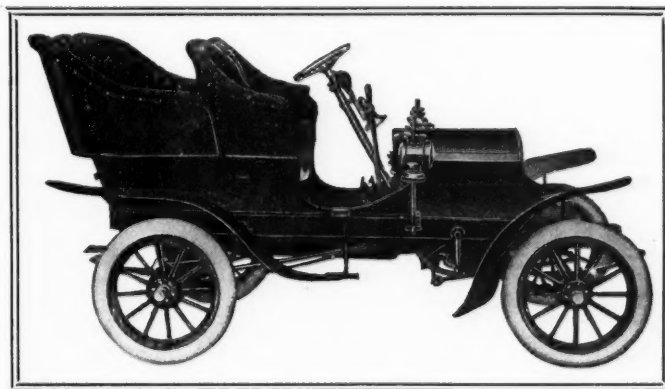
Water-cooled cars will be as much out of date in a year or two as one cylinder cars are out of date to-day.

When we started making motor cars, we were the only concern using four cylinders.

The best makers will come to air-cooled cars as surely as they have come to four cylinder.

Don't be out of date. Don't pay money for weight that uses up power and gasoline and wears out tires.

Send for catalogue of the six Franklin models for 1905.



Franklin Light Tonneau; 12 H. P.; \$1,650

FRANKLIN

H. H. Franklin Mfg. Co., :: Syracuse, N. Y.

Member Association Licensed Automobile Manufacturers.



THREAD FABRIC

G & J TIRES

Maximum of Durability
 Maximum of Speed
 Maximum of Comfort
 Minimum of Trouble

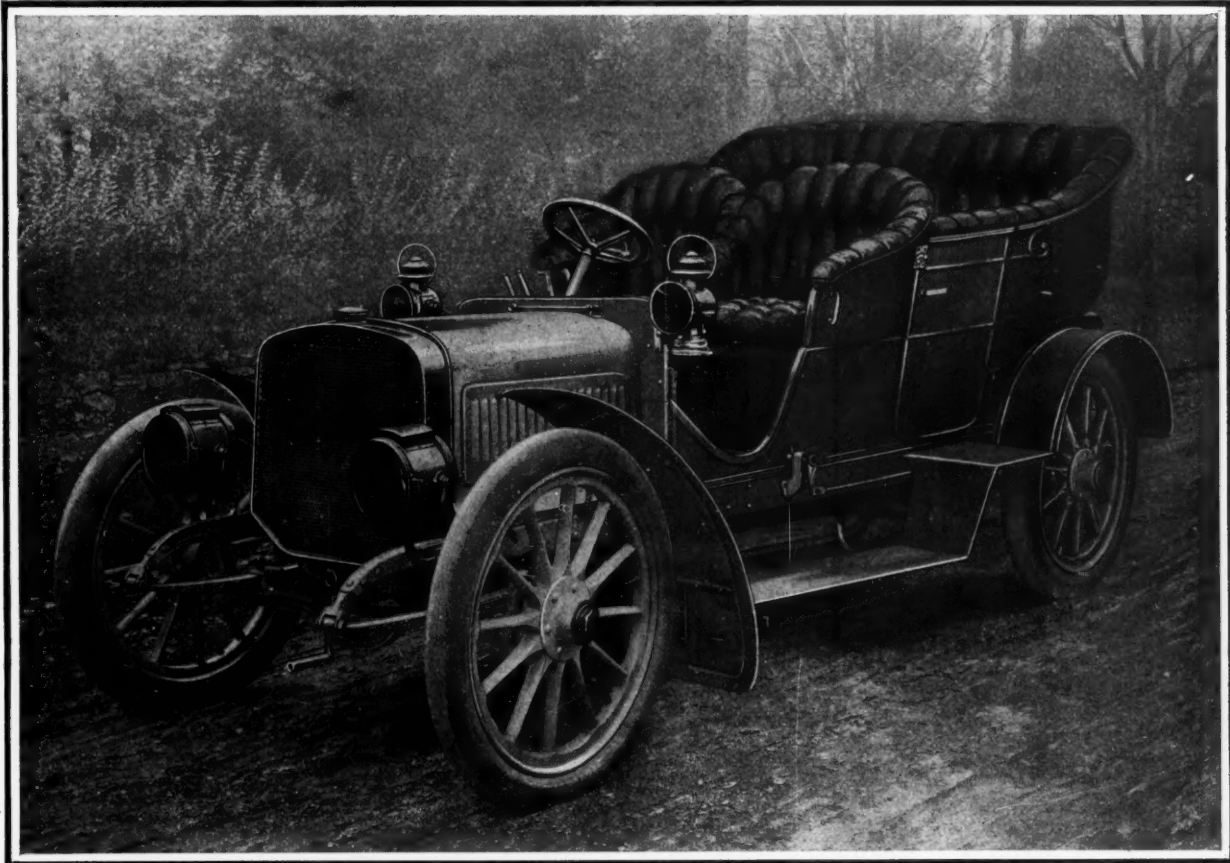
The thread fabric construction removes all internal friction from the fabric, so that the tires do not heat up under the longest drives at the highest speed. That is why G & J thread fabric tires are the most serviceable automobile tires in the world. :: :: :: :: :: :: ::

G & J TIRE CO.

FACTORY
 549-617 E. Georgia St.
 Indianapolis

Branch
429 Wabash Ave.
Chicago

Branch
247 Jefferson Ave.
Detroit



THE LOZIER MOTOR CAR—30-35 H. P.

EMBODIES the best elements of construction known to modern automobile engineering—absolutely high grade. The four-cycle, four-cylinder vertical type motor, being a “LOZIER,” carries with it every assurance of perfection—absolutely automatic carbureter—115 1-2 inch wheel base—36 inch wheels—4 1-2 inch tires—double chain drive—double side entrance tonneau—large seating capacity. CATALOGUE READY IN A DAY OR TWO. Send for one or ask us for a copy at the Madison Square Garden Show.

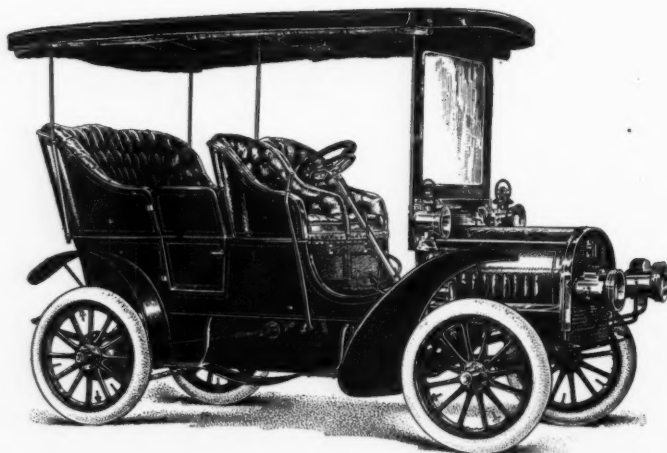
MOTOR BOAT AGENTS Are Requested to write us for our Motor Boat Discounts

THE LOZIER MOTOR CO., New York City

1 Broadway, Suite 6

LOZIER

Rambler



Surrey Type One, With Top 18 H. P. \$1500

Complete With Lamps, Tools, Etc.

Immediate delivery

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TELEGRAM

The Postal Telegraph-Cable Company transmits and delivers this message subject to the terms and conditions printed on the back of this blank.

Number 14 Sent By 20 m Rec'd By 18

Dated Los Angeles Calif Nov 18

To H B Jeffery & Co Kenosha

ship immediately car of three
surplus number one and wellers
machine customers fighting for
deliveries of surplus answer

W K Cowan

The season in Los Angeles, San Francisco, and other points on the Pacific Coast had advanced two months when this telegram was sent, and constant use had developed enthusiastic admiration of the vehicle. What has happened, will happen again—and in your city.

THOS. B. JEFFERY & CO., Main Office and Factory, Kenosha, Wisconsin

BRANCHES

BOSTON, 145 Columbus Avenue

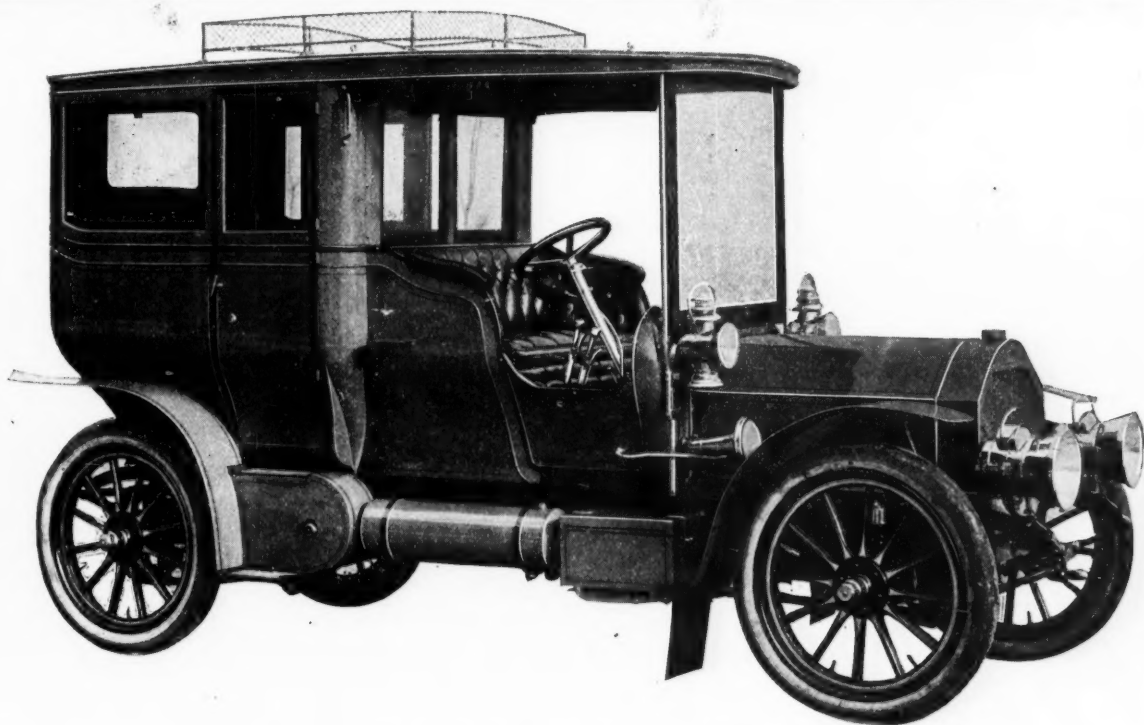
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APPERSON



50-H. P. Car with Limousine Body

24, 40, 50 HORSEPOWER CARS

LIMOUSINE BODIES SIDE DOOR BODIES

We do not turn out thousands of cars of the hand-me-down type, but we make a few good cars for those who want the best. Our cars are carefully made by Highly Skilled Mechanics who have been with us for many years. **OUR CATALOGUE**, which is now being distributed, tells you how they are made.

The Oldest Makers in America....The Best Cars in the World

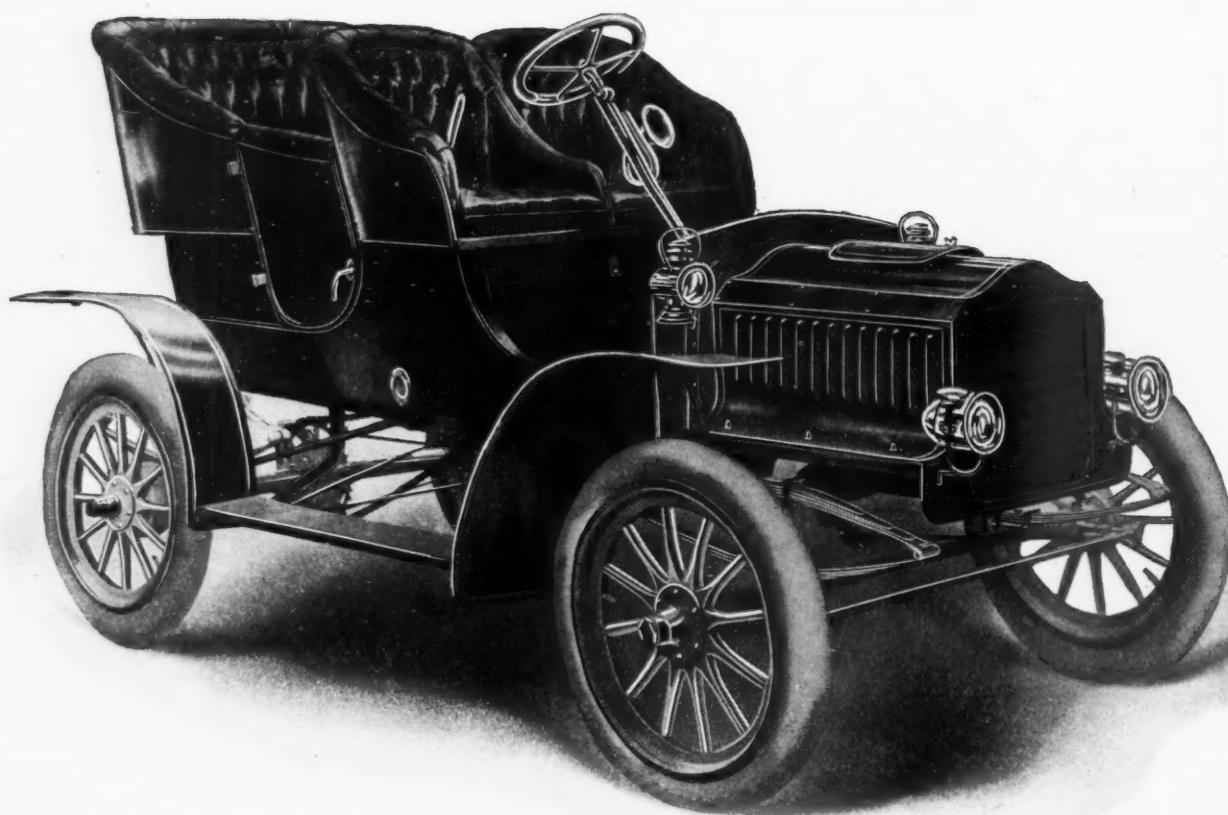
Apperson Bros. Automobile Co., Kokomo, Ind.

BRANCHES: No. 66 West 43d Street, NEW YORK

No. 43 Columbus Ave., BOSTON

No. 394 Wabash Ave., CHICAGO

Members Association Licensed Automobile Manufacturers



FORD MODEL "F"

Model "F" has behind it the prestige of "Ford Success." It is designed for Automobile users who want a practical and useful touring car at a price which makes such a vehicle a profitable investment, rather than an expensive luxury. For actual reliability, attractive style and economy of maintenance the Ford Model "F" is easily ahead of any two-cylinder car made.

SPECIFICATIONS OF MODEL "F"

Price—\$1,200.00.

Weight—1,400 lbs.

Motor—Ford two-cylinder horizontal opposed.

Wheel Base—84 inches.

Tread—Standard wagon.

Wheels—30 inches.

Tires—3½ double tube optional.

Maximum Speed—35 miles an hour.

Capacity Gasoline Tank—9 gallons.

Capacity Oil Reservoir—3 pints.

Cooling Water Capacity—4 gallons.

Color—Rich, dark green, yellow running gear.

Upholstering—Black, of best leather, handsomely tufted.

Equipment—2 side oil lamps, post horn and necessary tools.

We want our friends, critics and competitors to examine this car. Full information about all our 1905 cars is given in our new catalogue. Send for it to-day and get posted on the most advanced types of American Automobile construction.

FORD MOTOR CO., = Detroit, Mich.

Canadian Trade Supplied by FORD MOTOR CO., OF CANADA, Ltd., Walkerville, Ont.

Peerless

WORLD'S RECORDS

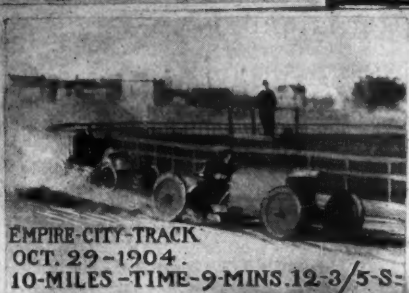


MT. WASHINGTON
JULY-12-1904
TIME-29-MIN. 6-4/5 S
24-HP. TOURING-CAR



24-HP. TOURING-CAR

LOS ANGELES CAL.
DEC. 12. 1904
TIME-1-MIN. FLAT.



EMPIRE-CITY-TRACK
OCT. 29-1904
10-MILES-TIME-9-MINS. 12-3/5-S-

Track Records

Made in 1904 by
Barney Oldfield in

THE PEERLESS "GREEN DRAGON"

	Time
1 mile	:53
5 miles	4:29
10 miles	9:12 1/2
15 miles	14:03 1/2
20 miles	18:45 1/2
25 miles	23:38 1/2
50 miles	48:40 1/2

THE PEERLESS CAR

also holds all
intermediate miles

1905 MOTORS

are of the same
type as used in

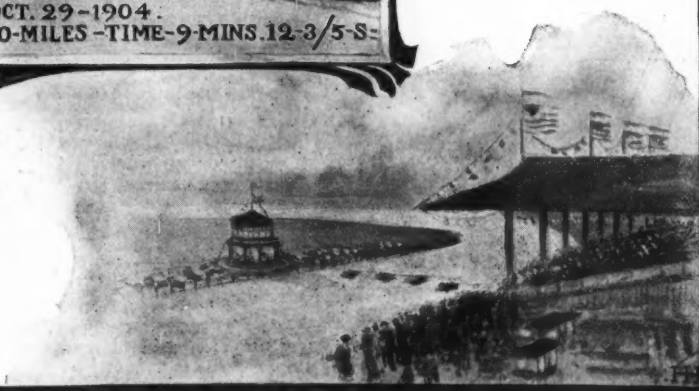
PEERLESS "GREEN DRAGON"

These wonderful motors are governed and controlled so perfectly that they run smoothly, silently and, at will, as slowly as an electric, yet there is record making power and speed always in reserve.

....Catalogue of new models sent on request....

PEERLESS MOTOR CAR CO.
CLEVELAND, - OHIO

Member A. L. A. M



HAYNES

1905 MODEL



Style and ...Quality...

Though style is worth considering, a car is not a good car unless it has quality—quality must be uppermost.

In the **HAYNES** quality has first thought—then style—though both are characteristic.

Everything that can make this car look better, wear better and run better is embodied in its manufacture—that's why the **HAYNES** is so good.

Prices

\$1,350.

15 h. p., two cylinder (opposed) two passenger car, with folding seat in front. Three speeds forward and one reverse.

\$1,500.

15 h. p., two cylinder (opposed) convertible four passenger (surrey type). Shaft drive, three speeds forward and one reverse.

\$3,000.

30 h. p., four cylinder (vertical in front), silent roller gear, shaft drive (direct on high gear), five passenger, double side entrance tonneau with extra storage space.

Handsome descriptive catalog upon application. Interesting features attractively displayed—write for it.

The Haynes-Apperson Co.

Kokomo, Indiana

DEPOTS:

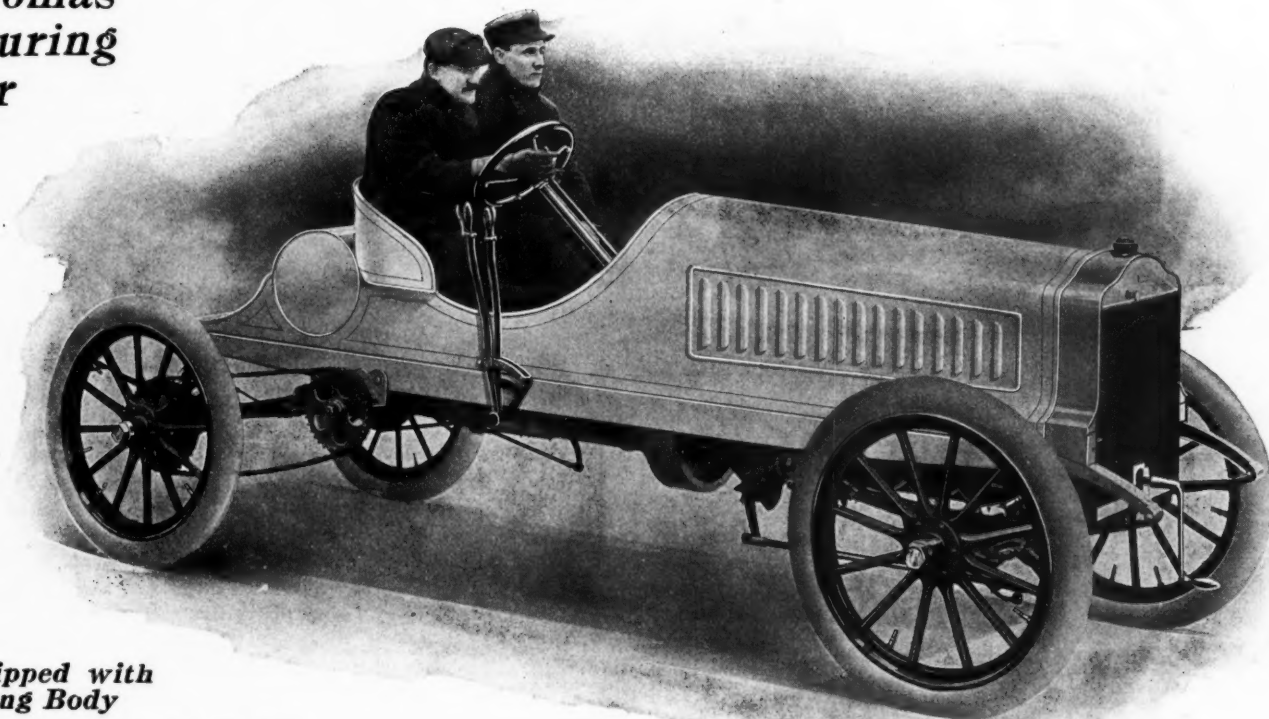
1715 Broadway, New York.

1420 Michigan Avenue, Chicago.

Member A. L. A. M.

Two Additional Members

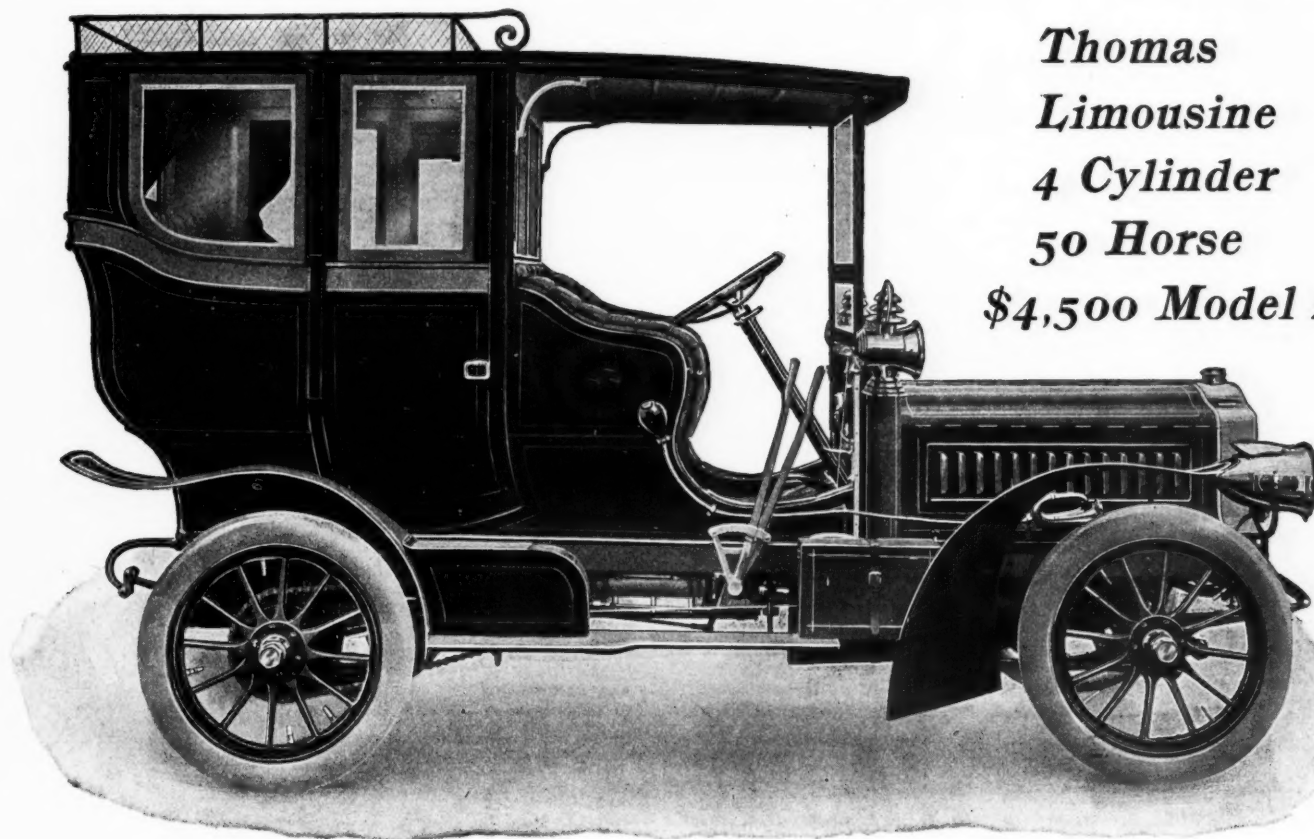
**Thomas
Touring
Car**



*Equipped with
Racing Body*

*6 Cylinder...60 Horse
\$6,000 Model 27*

Of The Thomas Flyer Family



**Thomas
Limousine
4 Cylinder
50 Horse
\$4,500 Model 29**

E. R. Thomas Motor Co., 1202 Niagara St.

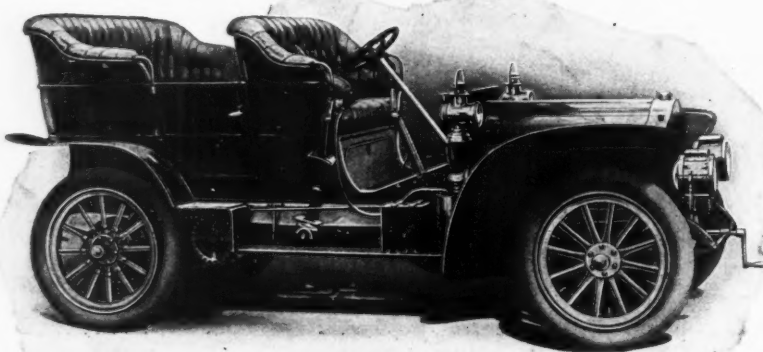
New York Show Section M
Chicago Show Spaces 43-44-45

BUFFALO, NEW YORK

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Automobile Manufacturers

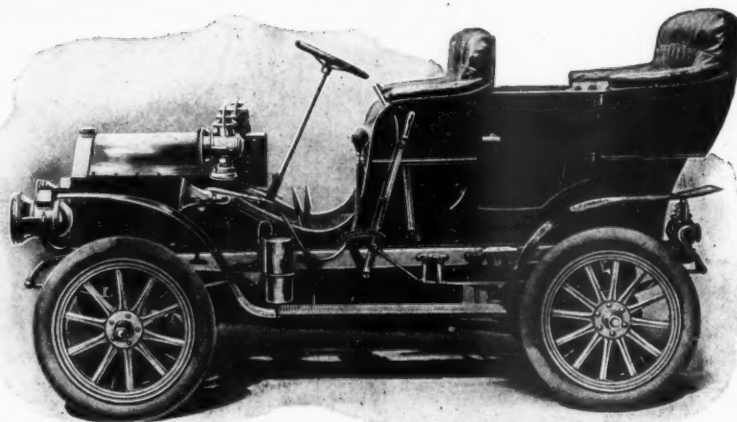
Columbia NEW GASOLENE MODELS

Built wholly in our own works and fully meeting every condition of American use, the new Columbia four-cylinder 35-40 H. P. car, Mark XLV is a worthy successor of Mark XLII, holder of the Chicago-New York continuous running record, embodying and incorporating its main features with important changes in certain details.



Mark XLV. 35-40 h. p. 4 Cylinders, \$4,000.

The new Mark XLIV has a double opposed horizontal engine under a forward bonnet, automatic features of lubrication, standard spark plugs and simplified details of cooling, oiling and control. The engine and everything connected directly to it forms one self-contained unit. The clutch, transmission and shaft drive form a second self-contained unit. These two units are brought together with a flexible joint, with no possibility of alignment derangement. The three forward speeds and reverse are controlled by a single lever. The carbureter is similar to that on the new Columbia 30-35 h. p. car. The body is a luxurious side entrance tonneau which comfortably seats four persons. Equipment includes gas headlights, oil side and tail lights, horn and tools. Price, \$1,750



Mark XLIV. 18 h. p. 2 Opposed Cylinders, \$1,750.

Most important among the improved features is the new carbureter which represents the latest and best practice and gives material increase of power. Spark and throttle control is by means of positively connected revolving levers, mounted in the steering wheel, which replace the spools with cable connections used last season, the new device insuring great delicacy of adjustment and reducing the necessity of gear changing to a minimum. All hand and foot levers have been modified and operate perfectly. The frame is of extra depth to meet the strains of side-entrance construction. All motive and operative parts are entirely independent of the body. Price with standard Tonneau body, \$4,000; with Royal Victoria body, \$5,000; with Limousine or Landaulet body \$5,500

See this and other new *Columbia* Cars at New York Show: Main Floor, Center Aisle.

Separate catalogues of Columbia Gasoline Cars, Columbia Electric Carriages and Columbia Electric Commercial Vehicles will be sent on request

ELECTRIC VEHICLE CO. HARTFORD, CONN.

NEW YORK
134-138 W. 39th Street

BOSTON
74 Stanhope Street

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1413 Michigan Avenue

Member Association Licensed Automobile Manufacturers



**8 REASONS
WHY THE**

Locomobile

Is Easily the Best Built Car in America

- 1.—Standard design. No freak features.
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- 3.—Special material for each part.
- 4.—All material analyzed and tested.
- 5.—Forgings used instead of castings.
- 6.—Every part made interchangeable.
- 7.—Careful attention given to minute details.
- 8.—Convenience of the customer considered at every point.

**See our Large Exhibit at the Automobile Show
Madison Sq. Garden, Jan. 14-21, 1905**

1905 Models

15-20 H. P. \$2,800	20-25 H. P. \$3,700
30-35 H. P. \$5,000	40-45 H. P. \$7,500

THE *Locomobile* COMPANY OF AMERICA, Bridgeport, Conn.

NEW YORK—Broadway, corner of 76th Street
PHILADELPHIA—No. 249 N. Broad Street

BRANCHES

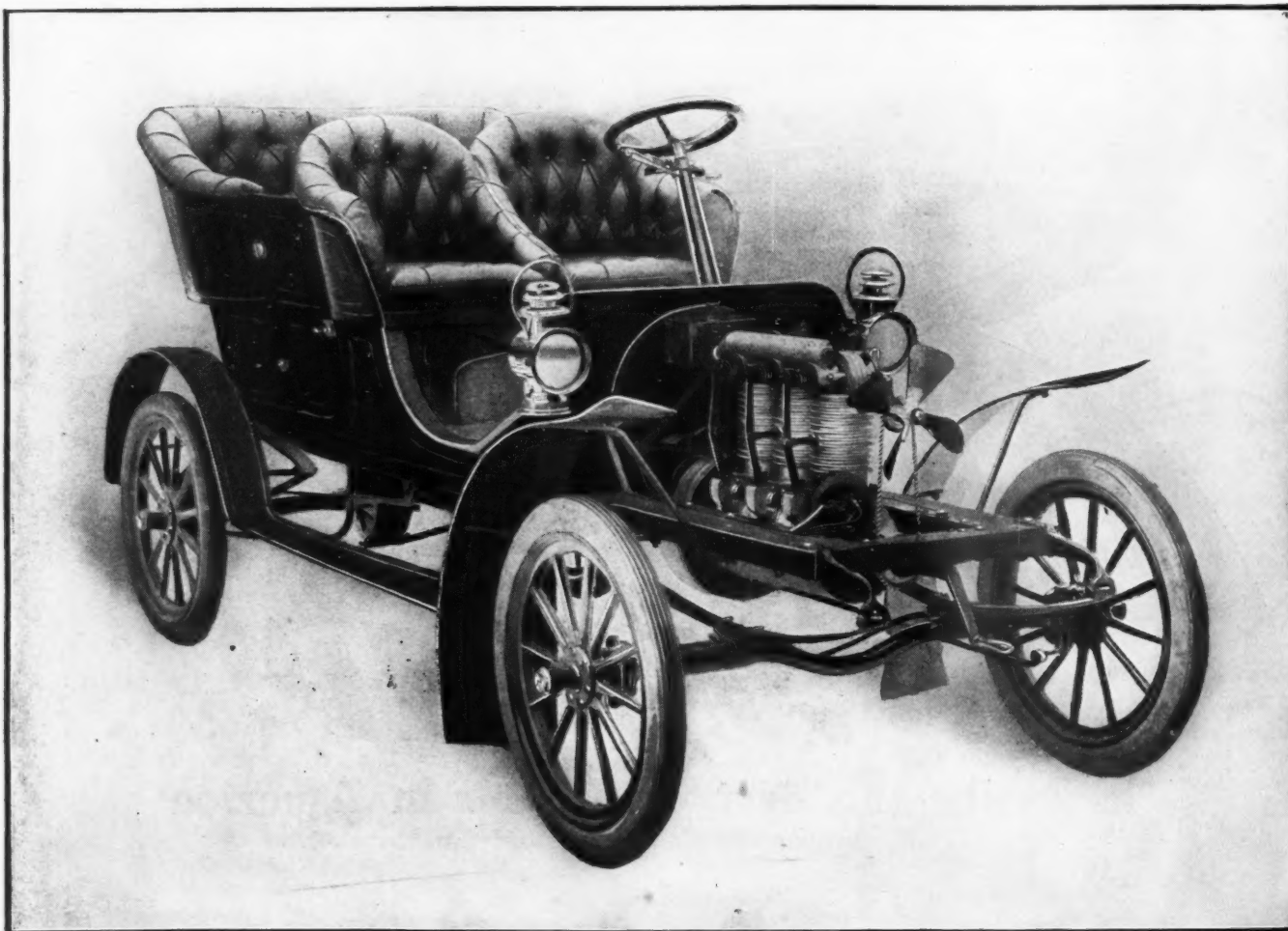
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**BUILT FOR SERVICE
KING OF ALL WEATHERS**

**IT SERVES YOU
THE CAR OF ECONOMY**



Model H— 8-10 H. P. Runabout	-	\$ 650
Model I— 8-10 H. P. Light Tonneau		750
Model J— 12-15 H. P. Special Surrey		1050
Model K— 12-15 H. P. Runabout	-	950
Model L— 12-15 H. P. S. Entrance Tonneau		1050

**HONEST CARS
HONEST PRICES**

**Excessive Horsepower
Efficient Very Speedy
Great Hill-Climber**

Piece for Piece, Dollar for Dollar, the **CAMERON CAR** is unquestionably the best proposition of the year. All models are **AIR-COOLED, SHAFT DRIVE, SLIDING GEAR TRANSMISSION, DIRECT DRIVE ON HIGH SPEED, NO GEARS IN MESH.**

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M. H. WHEELOCK, Manager

THE JAMES BROWN MACHINE CO.

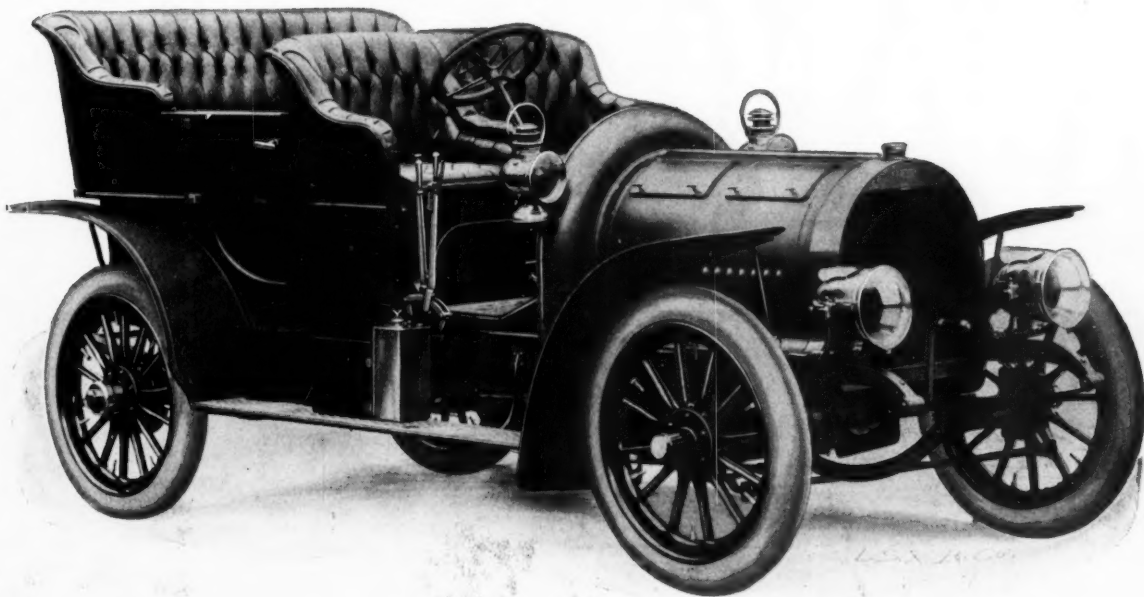
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1829

Pawtucket, R. I.

J. HAROLD JOHNSON, Sales Manager

The Royal Tourist

"TRUE BLUE"



MODEL F

32-38 H. P.

2500 Lbs.

\$3000⁰⁰

Its equal has never been produced before

New York Show—Section M. Chicago—Stands 33-34-35
 Write Department 2 for full particulars.

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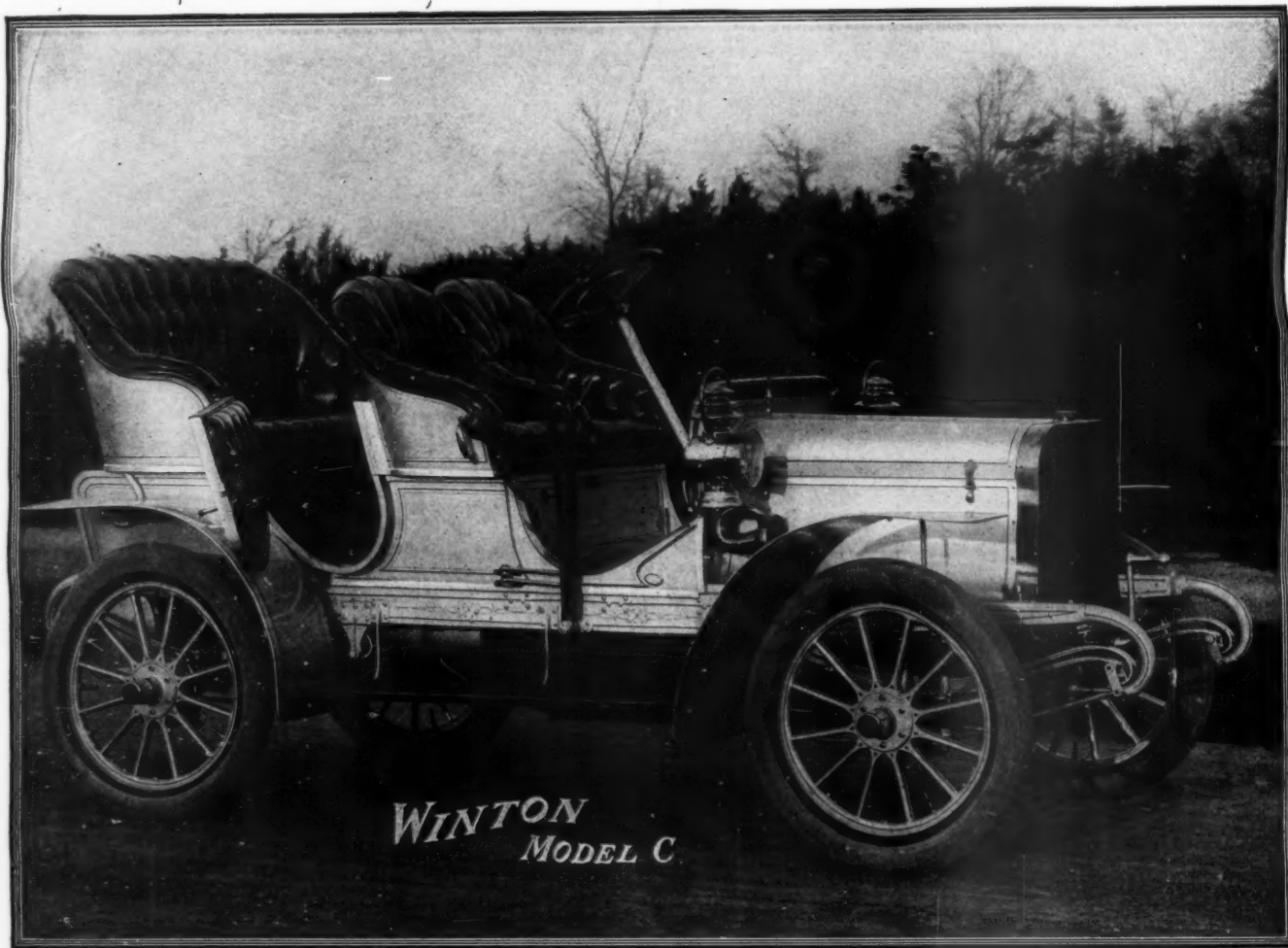
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NEW ENGLAND AUTOMOBILE CO.,
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WINTON



FIVE MODELS--All with four cylinder vertical motors. Side entrance tonneau cover. 40-50 h. p., \$3,500. Limousine Body Cars, 24-30 h. p., \$

Polar Compound. Keeps water fluid at 10 degrees below zero. One filling lasts all winter. Twenty-five cents a gallon, f. o. b. Cleveland. Shipping Cans extra—5 gal. 50c, 10 gal. 75c.

THE WINTON MOTOR
MEMBER ASSOCIATION LICENSED AUTOMOBILE DEALERS
CLEVELAND, OHIO

WINTON

These Advantages are
EXCLUSIVE WINTON FEATURES



All working parts immediately accessible and removable, without detaching cylinders from crank case or uncoupling oil, water, electric or air connections.

Air control, whereby operator can graduate speed from 4 to 60 miles an hour, without touching a speed lever or changing gears.

Ignition by gear-driven magneto and single non-vibrating spark coil. No dry or storage batteries. No intricate, multiple vibrator spark coil.

Lubrication absolutely automatic and positive. No springs, needle valves, sight feeds, or pressure. Lubrication in exact proportion to motor speed. No splash lubrication anywhere—even connecting rod bearings oiled mechanically.

Springs of unique design, combine resilience and resistance in ideal proportion. Add 30 per cent to life of motor. Take half the wear off the tires. Make motoring always comfortable.

Screw and nut steering gear, cannot wear unevenly. Cannot "wedge"—hence is always safe.

SIMPLICITY.—One pedal and two levers control all transmission clutches and brakes. Operation easy to learn.

PRICE.—Cars of equal horse power are listed by other makers at from \$500 to \$3000 higher than Winton prices, and have none of the exclusive advantages of Winton construction. Winton cars combine highest quality with lowest price.

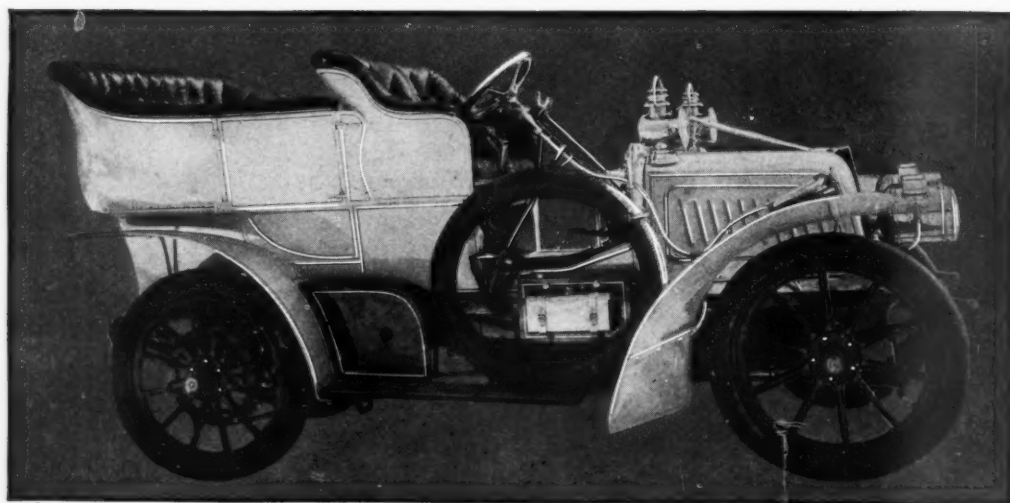
u cars, Model C, 16-20 h. p., \$1,800. Model B, 24-30 h. p., \$2,500. Model A, p., \$3,500. 40-50 h. p., \$4,500. Get catalog No. 2.

WINTON CARRIAGE CO.
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WORTHINGTON AUTOMOBILE ...COMPANY...

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24 H. P. Berg Touring Car

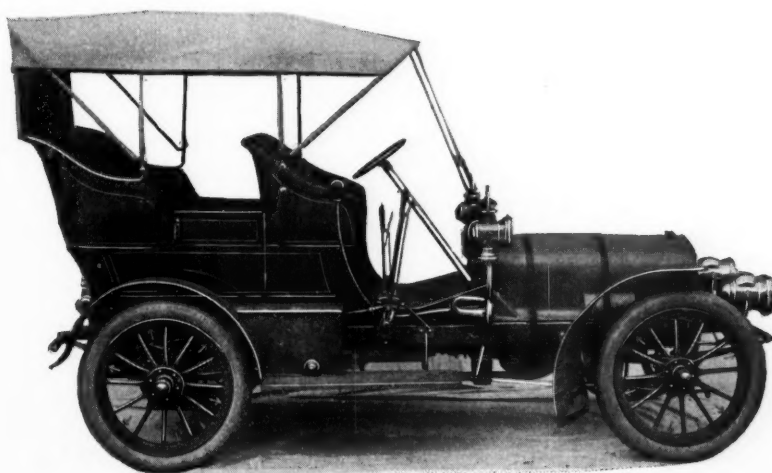
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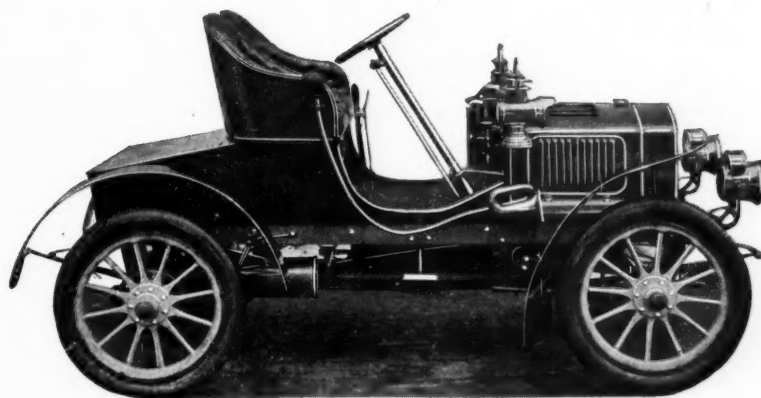
WE GOT THE WORST OF IT IN SPACE ALLOTMENT

WE'RE IN THE BASEMENT AT THE NEW YORK SHOW.
BUT COME DOWN AND LOOK US OVER. IT'LL WELL PAY YOU.



ACME TYPE 8. Price, Complete, as Illustration, \$2,750

Four Cylinder, 28 H. P., Four Speeds Forward and Reverse, Sliding Transmission, Interlocking Gear Shift and Automatic Carbureter. Weight, 2,300 lbs.



ACME TYPE 10. Price, Complete, as Illustration, \$1,000

Two Cylinder Vertical, 16 H. P., Three Speeds Forward and Reverse, Sliding Transmission, Interlocking Gear Shift and Automatic Carbureter. Weight, 1,175 lbs.

ACME MOTOR CAR COMPANY

DEVLIN & CO., 1407 Michigan Blvd.,
CHICAGO, ILL., Western Distributors

READING, PA.

We will Exhibit at the
NEW YORK and CHICAGO SHOWS

A Superlative Car

THE "DUQUESNE" (four-cylinder air-cooled, 16-21 H. P. Car) is a superlative product.

Designed by men whose long experience both in French and American practice fitted them to cope with every problem, the "DUQUESNE" excels, not alone in certain features, but is uniformly **best**.

THE AIR-COOLING system is the simplest and—**best**.

THE LUBRICATION system is positive and—**best**.

IGNITION—single coil, distributor on dash, simple, positive, reliable—**best**.

TRANSMISSION—smoothest, most flexible and—**best**.

SPEED CONTROL—throttle and spark—**best**.

MOTOR AND TRANSMISSION suspension is "three point"—**best**.

EVERY PART, pressed steel tanks, pressed steel dash, frame, wheels, tires, finish and trimming—**best!—best!!**

A SUPERLATIVE CAR and the price—here is the surprise—

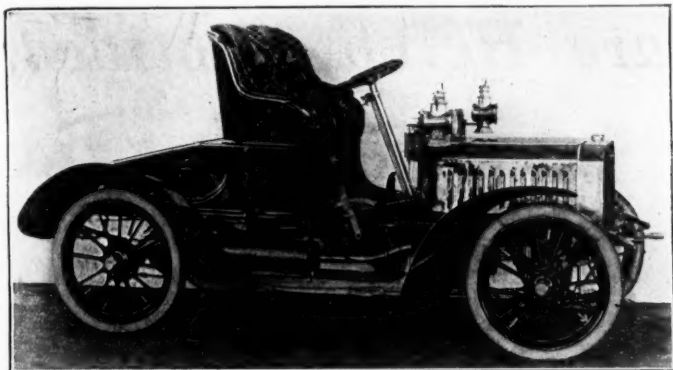
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American Duquesne Company

Sole Distributing Agents : : : : : Jamestown, N. Y.

COMPOUND

Gasolene Cars for 1905



Model 4½, \$1,200

Model 4, with Side Entrance Tonneau, \$1,400

12-15 H. P.

Weight with Tonneau 1,750

81-inch Wheel Base

3x28 Tires

Shaft Drive

The Only
COMPOUND
Gasolene Motor
Manufactured



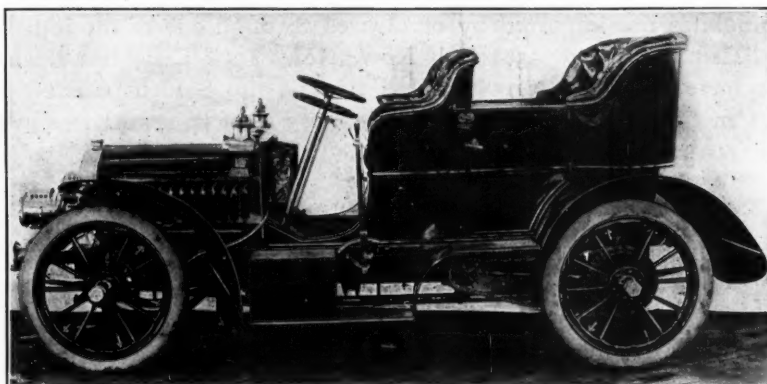
12-15 H. P. Motor

All models have
sliding gear
transmission,
three speeds,
forward and re-
verse, aluminum
bodies and fenders

100-inch
wheel base

34 x 4

tires



Model 3, \$2,000

24-28 H. P.

Weight

2150

WE EXHIBIT AT NEW YORK SHOW
THE E. H. V. CO., Middletown, Conn.

Notice to the Public

All Users of Gasoline Automobiles and All Intending Purchasers are Hereby Notified:

That there has been a Complete Surrender by the Panhard and Levassor Company of Paris, France, and the members of that corporation who represent it in New York City, to the rights of the Association of Licensed Automobile Manufacturers, under the Selden patent, by the recognition of the validity of the basic U. S. letters patent No. 549,160 granted to George B. Selden, Nov. 5, 1895.

A capitulation has been made also by the present American representatives of the Mercedes Automobiles hereinafter named.

In the future all Panhard Motor cars brought into the United States by or through Panhard and Levassor or Smith and Mabley and all Mercedes cars brought in by Allen, Salle and Co. through their representatives Smith and Mabley, all of New York City, will come in under licenses granted by the Electric Vehicle Company of Hartford, Conn., under the Selden patent, with the authorization of the Association of Licensed Automobile Manufacturers.

Suits have been brought and vigorously prosecuted against the representatives of the Panhard and Mercedes cars for infringement of the basic Selden patent, No. 549,160 by the unlicensed importation of the cars named, and this surrender now clears the way for these makes of foreign cars to have license-plates attached to them when sold by or cleared through the parties named herewith.

The royalty on all Mercedes and Panhard cars heretofore brought in by the parties named since January 1, 1903, having been adjusted, Selden license plates will be furnished the present owners of such cars upon application to the agents.

The full list of licensed importers (who represent all the leading makes of foreign cars) from whom cars may be purchased or through whom they may be cleared in any port of entry, without liability of suit for infringement of the Selden patent, is now as follows:

Auto. Import. Co., 1786 Broadway, New York.
Sidney B. Bowman Automobile Co., 52 W. 43rd St., New York.
The Central Automobile Co., 1684 Broadway, New York.
Hollander & Tangeman, 5 West 45th St., New York.
F. A. LaRoche Co., 147 West 38th St., New York.

Standard Auto. Co. of New York, 136 West 38th St., New York.
Smith & Mabley, Inc., 513 7th Ave., New York.
Panhard & Levassor Co., 232 West 13th St., New York.
Worthington Auto. Co., 547 5th Ave., New York.

All persons are now finally warned that suits will be brought against firms and individuals who import hereafter any gasoline automobiles, of any foreign make through any entry port of this country, or who buy any foreign made gasoline automobiles not imported by or cleared through one of the importers above named.

William A. Redding, Esq., Attorney, 338 Park Row, New York City, has been authorized to make adjustments with persons who have in the past unwittingly infringed the Selden patent by the importation or purchase of unlicensed foreign made automobiles, and who choose now to guard themselves against prosecution.

The American Manufacturers now licensed under the basic Selden patent No. 549,160 are:

Apperson Bro. Automobile Co., Kokomo, Ind.
The Autocar Co., Ardmore, Pa.
Buick Motor Co., Flint, Mich.
Buffalo Gasoline Motor Co., Buffalo, N. Y.
Cadillac Automobile Co., Detroit, Mich.
Crest Mfg. Co., Cambridge, Mass.
The Commercial Motor Co., Jersey City, N. J.
Electric Vehicle Co., Hartford, Conn.
Elmore Manufacturing Co., Clyde, Ohio.
H. H. Franklin Manufacturing Co., Syracuse, N. Y.
The Haynes-Apperson Co., Kokomo, Ind.
The Kirk Mfg. Co., Toledo, Ohio.
Knox Auto Co., Springfield, Mass.
Locomobile Company of America, Bridgeport, Conn.
Northern Mfg. Co., Detroit, Mich.
Olds Motor Works, Detroit, Mich.

Packard Motor Car Co., Detroit, Mich.
The Peerless Motor Car Co., Cleveland, Ohio.
George N. Pierce, Buffalo, N. Y.
Pope Mfg. Co., Hartford, Conn.
Pope Motor Car Co., Toledo, Ohio.
The Sandusky Automobile Co., Sandusky, Ohio.
The Standard Motor Construction Co., Jersey City, N. J.
The J. Stevens Arms & Tool Co., Chicopee Falls, Mass.
Smith & Mabley, Inc., 513 7th Ave., New York.
The F. B. Stearns Co., Cleveland, Ohio.
Studebaker Auto Co., South Bend, Ind.
F. R. Thomas Motor Co., Buffalo, N. Y.
Waltham Mfg. Co., Waltham, Mass.
The Winton Motor Carriage Co., Cleveland, Ohio.
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on the car you will purchase at any of the automobile shows and you will lay aside the expensive tire question for at least a year. This statement is based on experience of many years in Europe and two years in America. Owners are building up our business by recommending Continental Tires to their friends.

Don't be persuaded to accept an imitation or a substitute.

SEE US AT MADISON SQUARE GARDEN.

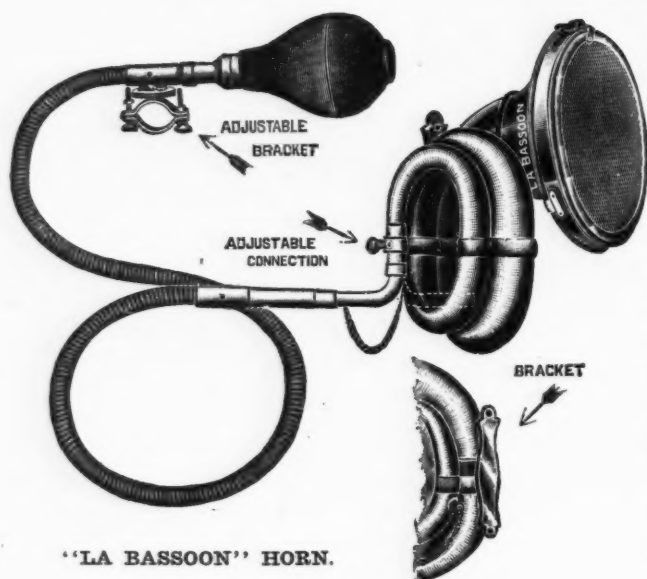
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298 Broadway, New York City

Factory: Hanover, Germany

Largest Automobile Supply House IN AMERICA.



"LA BASSOON" HORN.

Attention Manufacturers, Jobbers, Dealers and Owners of Automobiles. We are Headquarters and Sole American Agents for the finest line of horns in the world. Our prices are the lowest ever quoted in this country. We are now supplying the leading manufacturers in this country. We carry a large stock of all sizes. Circular and quotations on request.

"LA BASSOON" HORN.

This is one of our latest [double bend] style and we guarantee it to be superior to any other horn on the market. This horn is made with an extra coil, large size, which produces an unusually low, deep tone. This horn is fitted with an adjustable tube connection so that the horn may be adjusted and fitted to the car in any position desired, and is furnished with a heavy plate bracket as shown on cut. This horn is being used on the high-priced touring cars, and the horn itself being very showy, adds greatly to the appearance of a fine car.

No. 15, L. B. Diameter of bell 7 inches. Polished brass only. Complete with 40-inch flexible tube and screen, \$12.50.

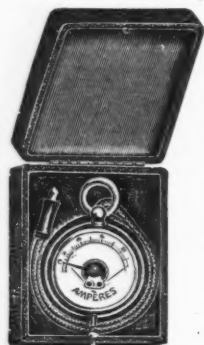
Extra 50-inch Tube, 35 cents. Extra 60-inch Tube, 70 cents. Extra 72-inch Tube, \$1.10.

THE CELEBRATED BRAMPTON CHAIN

Made from self-hardening steel. The strongest chain in the world. Note heavy chamfered side plates. This chain is polished as smooth as a looking glass, and fits and revolves on sprockets without friction. Look on the high-powered European cars, Panhard, Mercedes, Fiat, Napier, Martini, etc., and you will find that they use the Brampton chains. What does this signify? We can furnish all standard sizes to fit American as well as foreign cars. State name of car or size of chain wanted.



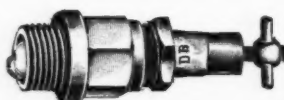
Pocket Amperemeter, No. 1.



Furnished in a plush-lined box. Positive terminals connected. Handiest instrument of the kind in this country. Registers 0 to 15 amperes.

Price, each,
\$6.40

Genuine De Dion Spark Plugs.



Acknowledged the most satisfactory spark plug in the world. Used by all the leading manufacturers in Europe. Furnished in handy hardwood carrying case with metric thread only.

Price, each.....**\$1.50**

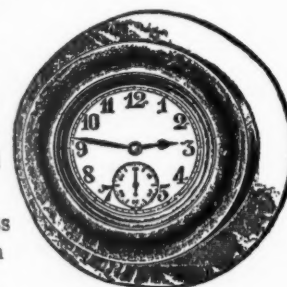
D. B. Porcelain Porcelains for repairing De Dion Spark Plugs. Furnished complete with ignition point, terminal post and wing nut as shown in cut.

Price, each.....**30 cents**

The Royal Automobile Watch Case and Pendant.

No one can steal this watch.

The only first-class automobile watch on the market.



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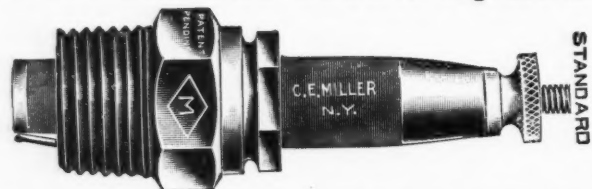
- No. 1. Eight day non-magnetic lever, with breguet spring, fully jewelled, in best finished case, with secret spring lock.
Each.....**\$30.00**
- No. 2. Same as above, excepting runs for thirty hours only, each....**\$20.00**

The watches and cases are of superior quality and finish, and all workmanship is guaranteed.

Catalog Mailed on Request.

The Miller Mica Spark Plug

Guaranteed for 90 days



This ignition plug has been very extensively used and pronounced the best by all who have tried it, and is practically indestructible.

PRICES:

Standard 3-8 in. pipe thread
\$1.50 each.

Standard 1-2 in. pipe thread, \$1.50 each. Standard Metric (French thread) \$1.50 each.

Prices on Special Plugs given cheerfully on application.

WE WILL EXHIBIT AT NEW YORK, PHILADELPHIA & BOSTON AUTOMOBILE SHOWS AND AT MOTOR BOAT SHOW, MADISON SQUARE GARDEN, NEW YORK.

CHARLES E. MILLER

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NEW YORK BRANCH, Broadway and 38th St.

PHILADELPHIA BRANCH, 318-320 North Broad St.

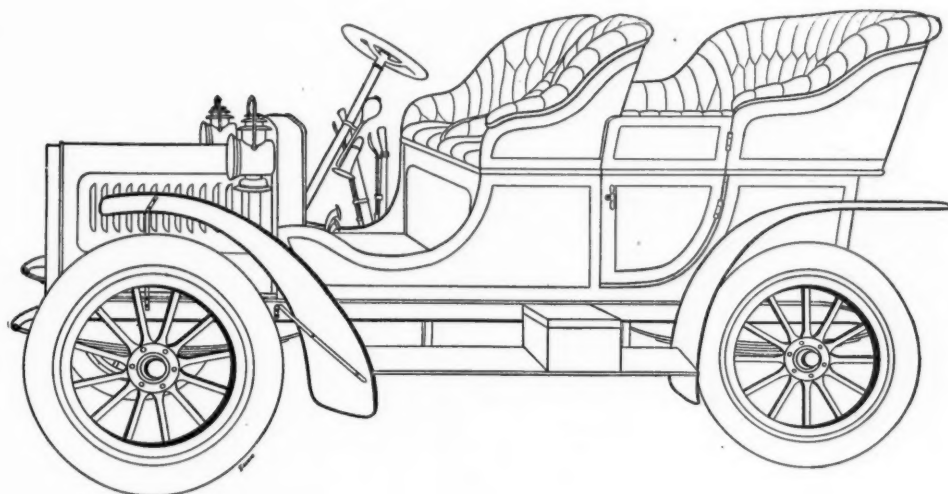
BOSTON BRANCH, 202-204 Columbus Ave.

DON'T FAIL TO SEE THE COVERT CARS AT THE SHOWS

THE IDEAL LIGHT CARS FOR TOWN OR COUNTRY

Type A.

A light Runabout that needs no introduction. Its record of the past season, notably in the St. Louis Tour, in which its performance was nothing less than remarkable, has won for it the recognition it deserves and has put it in a distinct class.



Type B.

A light, powerful, side-entrance touring car of the prevailing type. It is graceful in its lines and beautiful in finish. It has a four cylinder vertical motor of 20-24 H. P. and weighs complete 1,800 pounds. It has a long wheel base and flexible springs that make it easy riding. It has shaft drive and a ball-bearing transmission that transmits the power from motor to wheels without any perceptible loss. It has many other splendid features worth investigating.

IT IS A HIGH GRADE CAR AT A MODERATE PRICE

COVERT MOTOR VEHICLE COMPANY

LOCKPORT, NEW YORK

IMPORTERS' AUTOMOBILE SALON



HERALD SQUARE EXHIBITION HALL

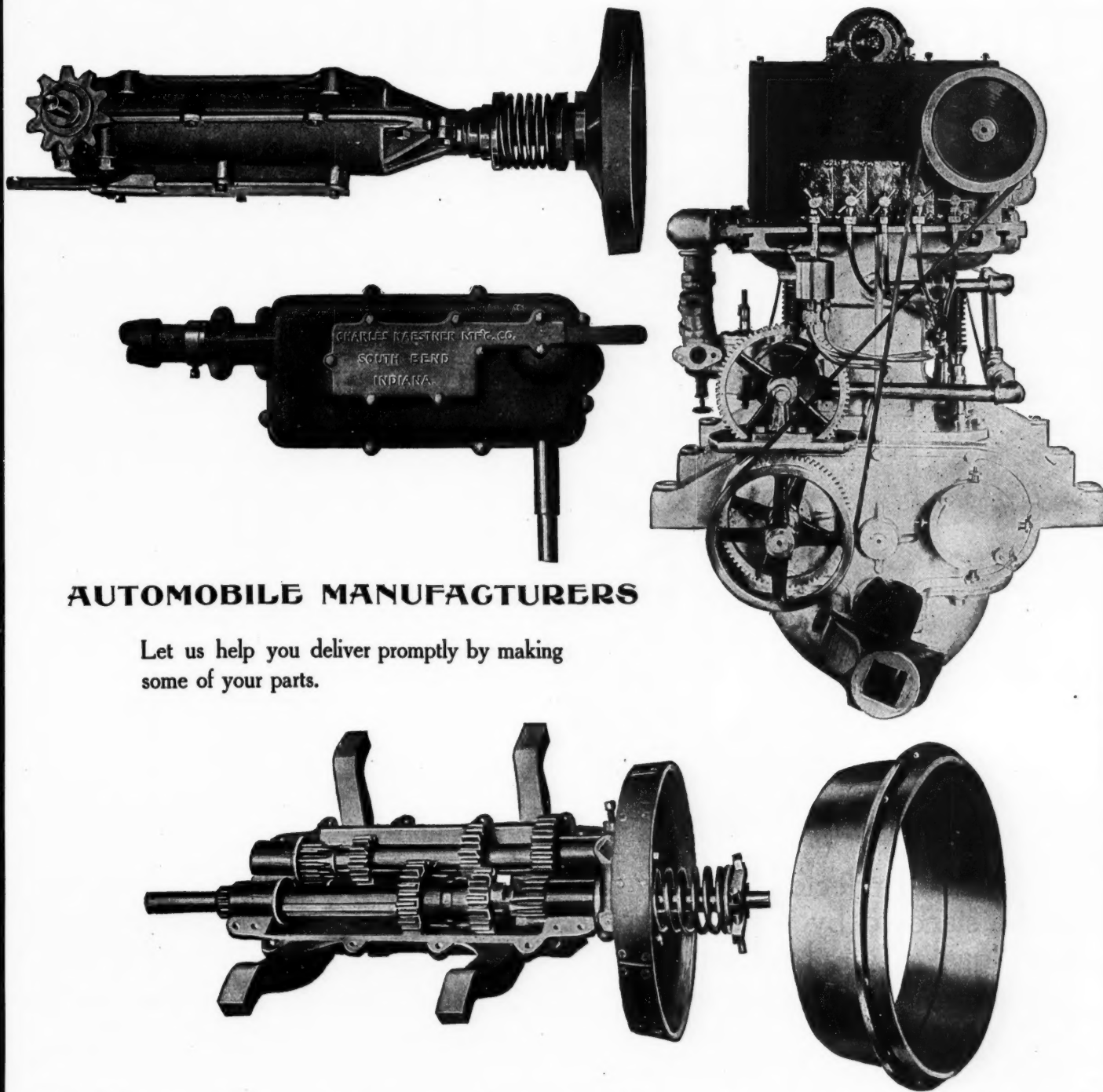
Broadway **NEW YORK CITY** 34th & 35th Sts.

From January 11th Until January 24th

ADMISSION 50¢

MONDAYS \$1.00

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AUTOMOBILE MANUFACTURERS

Let us help you deliver promptly by making some of your parts.

If You Want the Best Buy Kaestner Goods

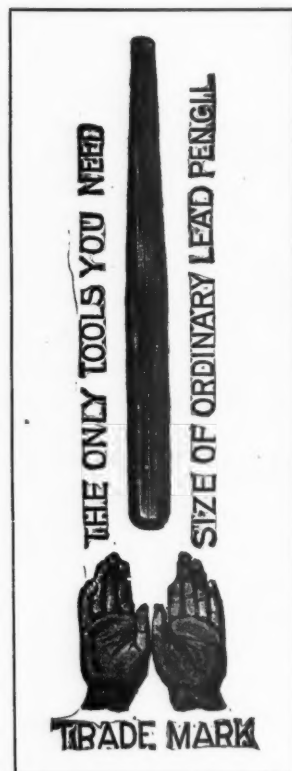
WE NOW MAKE 18 different styles of Transmissions. Motors from 10 to 125 H. P. for Automobiles, Boats and Mining Machinery. Side Lever Controls, Wheel Steering Devices. Can deliver to specified contracts.

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CHAS. KAESTNER MFG. CO., SOUTH BEND, INDIANA

The Perfected Dunlop Detachable Tire

IS THE EASIEST ATTACHED AND DETACHED TIRE ON THE MARKET



The "Perfected Dunlop" has been enabled to maintain its position as the standard by which other tires are judged, principally to the fact that "quality" has been the great consideration in its construction. Notwithstanding the advance in price of crude rubber, nothing but the very highest grade is used in the "Perfected Dunlop." This quality will be maintained under all circumstances.

THE "PERFECTED DUNLOP" ABSOLUTELY DOES NOT CREEP

Send for booklet and
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Don't fail to see *The Neverout* at
the New York and Chicago shows

The brightest and most powerful light

The reflectors used in
The Neverout Patent Motor Lamps
are exceedingly
brilliant and project a strong,
powerful light. They always
retain their original bright-
ness, can be easily cleaned
and are absolutely non-
breakable.

The Neverout
REGISTERED TRADE MARK

is simple in construction,
neat and beautiful in appearance. It is so well put
together that it won't rattle or come apart.

The lamp itself will stand the vibration, and no
matter how rough the road,

The Neverout
stays lit or your money back

Gas headlights and searchlights. Oil side lamps
and rear lamps. Patent safety gas generators.

Write for booklet that tells about the various styles of *Neverout Patent Motor Lamps* and
shows pictures of them.

Rose Manufacturing Co., 912 Arch Street, Philadelphia

WE FURNISH THE AUTOMOBILE MANUFACTURERS WITH COMPLETE FRONT AND REAR

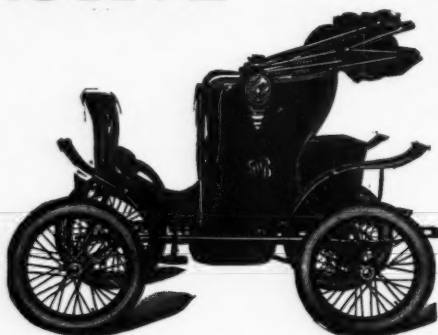
Ball Bearing Axles

THAT ARE WELL KNOWN FOR WORKMANSHIP, DURABILITY AND EFFICIENCY

THE AMERICAN BALL BEARING CO., - - - Cleveland, Ohio

CLASSIFICATION ... WHY? DISTINCTIVE

THE LIGHTEST
THE STRONGEST
MOST DURABLE
MOST EFFICIENT
BEST FINISHED



ABSOLUTELY SAFE
PERFECTLY CLEAN
BEST TO RIDE
MOST ECONOMICAL
TO KEEP

THE BAKER ELECTRIC

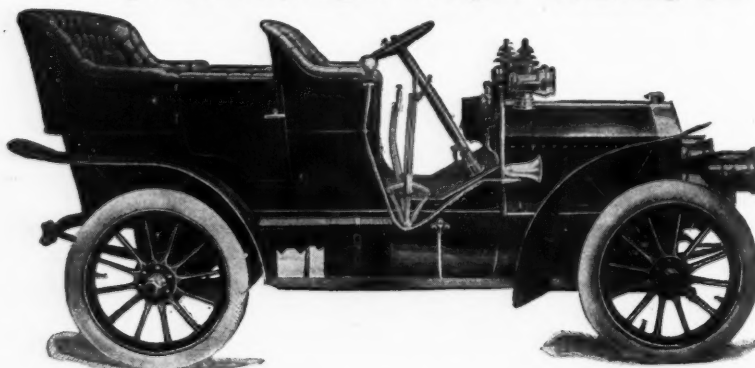
Attractive in Rich Finish and Design. ✱ Simply Manipulated. ✱ Always Satisfactory.
A Carriage Any Lady Can Drive.

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THE BAKER MOTOR VEHICLE CO., Cleveland, Ohio

THE "CLEVELAND"

A High-Grade, Light-Weight Touring Car



18-h. p. Four Cylinder Vertical Engine. Price \$2,800

FEATURES:—91-inch wheel base; pressed steel frame; aluminum underbonnet; spark and throttle control on top of steering wheel; three speed transmission with direct drive on high speed; mechanically actuated inlet and exhaust valves; jump spark ignition; side door entrance.

We are establishing agencies. Write for particulars.

CLEVELAND MOTOR CAR CO., Cleveland, O.

New York Show—Block "T", Exhibition Hall

Chicago Show—Spaces 111 and 112

The Reliable
Waterless Knox
Cars for 1905

Higher in Quality



Superb in Style and Finish

The Knox 1905 two-cylinder air-cooled machine is as quiet and smooth working as any four-cylinder machine, with only half its complications.

AWARDED GRAND PRIZE
at the Universal Exposition
St. Louis, 1904

14-16 H. P. Side Door Tonneau, \$1900

14-16 H. P. Convertible Surrey, \$1750

14-16 H. P. Folding Front Seat Runabout, \$1500

Single Cylinder Folding Front Seat Runabout, \$1250

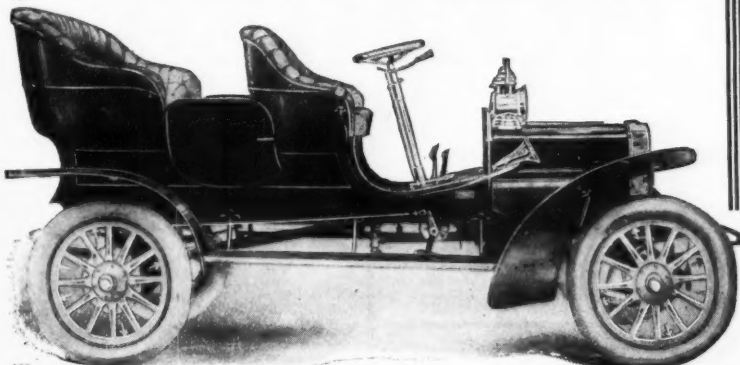
1905 Models will be on exhibition at the New
York and Chicago Automobile Shows.

KNOX AUTOMOBILE CO.,
SPRINGFIELD, MASS.

Members Association Licensed
Automobile Manufacturers

Selling Agents in all Principal
Cities

NORTHERN



New 1905 Touring Car with Side Entrance
Opening on Direct Line to Running
Board : PRICE, \$1,700

¶ A marvel of mechanical simplicity. Easy to operate and easy to understand. Positively noiseless and dustless. Smoothest and quietest running car in the world. Will climb any hill. The Northern is the only automobile having only one universal joint.

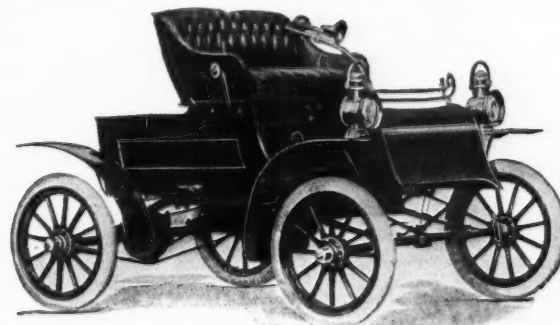
¶ No strut rods or truss rods, no belts, chains or gaskets. Planetary transmission. Enclosed driving shaft supported by roller bearings. Only three vital points to oil.

¶ Three point motor support, insuring perfect alignment of machinery over all roads. Every part accessible without getting under car.

¶ The Northern is the only dustless touring car. A large fan, cast integral in 24-inch fly wheel, which sets in slanting position, throws immense volumes of air under car toward rear, with the result that tonneau passengers enjoy complete freedom from dust. Northern Automatic Compensating Carbureter — built to fit the engine — assures perfect mixture at all speeds.

GENERAL SPECIFICATIONS:

¶ Wheel base, 100 inches; gauge, 56 inches; wheels, 30 inches; tires, 4 inches. Motor, $5\frac{1}{4} \times 5\frac{1}{4}$; double-opposed cylinders, developing 17 b. h. p. Transmission, planetary type, 2-speed forward and reverse. Weight, 2,000 lbs. Choice of four bodies, all interchangeable; two-passenger body, five-passenger rear entrance, five-passenger side entrance, or Limousine body.



THE STURDY NORTHERN RUNABOUT---\$650

¶ Easily best and strongest runabout made. Stylish, comfortable, speedy and reliable. Will go over any road and climb any hill.

¶ 1905 improvements. Larger body, larger fenders, bigger oil cups, and full back molded seats.

¶ If you want to get in touch with a line one year ahead of all others, write today for Catalogue 14.

NORTHERN MANUFACTURING CO. DETROIT, U. S. A.

YOU CAN'T AFFORD TO MISS IT
THE
PREMIER AIR-COOLED



"The Quality Car"

At The New York Show

January 14th-21st

Section "A" in the Restaurant

PREMIER MOTOR MFG. CO. : : INDIANAPOLIS, IND.

The Jackson Model "C"
1905



Model "C" \$1,250

Up-to-date in all Features

The best material and workmanship that money can get is used in the construction of all our 1905 models.

Our experience in building Automobiles, which has extended over a period of three years, has enabled us to eliminate the troublesome small defects, which are bound to come out with new makes of automobiles.

In our **Model "C"** Touring Car, we have embodied the following points, which the posted automobile public will recognize as being essential to the up-to-date 1905 touring car :

Price \$1,250

18 Actual horse-power; 2 Opposed cylinders; 5-in. stroke, 5-in. bore. An engine that is noiseless and runs like a watch. 1,500 pounds; 3 to 40 miles per hour; 90-in. wheel base; Cellular Radiator; King of Belgium body; seats FIVE people; side door entrance Tonneau; w de Fenders with Running-board; Divided Front Seats; Locking Steering Device; Rides like a Pullman. Controls as easy as an Electric.

We have increased our manufacturing facilities and can take care of a few more agents.

OUR AGENTS ARE:

Hagmann & Hammerly, Chicago
Jackson Auto Co., Buffalo
E. P. Blake Co., Boston
Hawauer Aut. Co., Cincinnati
O. H. Pieper, Rochester, N. Y.

We have a Runabout at \$650 and a Touring Car at \$1,125
Write for our 1905 Catalog

JACKSON AUTOMOBILE CO.,
Jackson, Michigan

Send for Circular No. 8

If you are going to build automobiles you will want this circular. It describes our Axles, Change Gears, Cone Clutches, Mufflers, Steering Gears and other standard parts. All of these parts have been designed with unusual care. They are suitable for cars of all classes.

**FEDERAL MANUFACTURING COMPANY,
ELYRIA, OHIO.**

Selling Agent: HAYDEN EAMES, American Trust Building, Cleveland.

NEW YORK SHOW: Section "D" Concert Hall. CHICAGO SHOW: Gallery spaces 240, 241, 242, 243 and 244.

HORSE POWER

Some of our competitors try to make Cadillac dealers believe that we lack sufficient horsepower, and that we only "claim six and one-half horsepower." It is true we rated our 1903 engine at but six and one-half horsepower and our 1904 engine at eight and one-quarter horsepower. We had an object in doing this. We knew we had sufficient horse power to driver a Cadillac over any road and up any hill that any automobile would go. No Cadillac engine was sent out of our engine factory that would not test above eight and one-half horsepower actual brake test after one hour's run on the block.

FOR 1905

we have continued to use the same engine in all models under \$1000 in price. We are confident that we have increased the horsepower delivered to the ground. We gear the heavier models for moderate speed and great power, the light ones for both power and speed. The superior construction of all models enable us to assure all prospective customers of greater road ability than we gave last year. The Cadillac has all the power necessary to drive it anywhere at reasonable speed. We've never claimed any more than we had. A Cadillac engine has on several occasions demonstrated its ability to do more work than some so-called 12 to 16 horse power gasoline engines can do when mounted in a carriage.

CADILLAC AUTOMOBILE COMPANY, Detroit, Mich.

MEMBERS ASSOCIATION LICENSED AUTOMOBILE MANUFACTURERS.



DIETZ

Lamps are made wherever possible with machinery—all alike and all good. The parts are always interchangeable. No hand work can equal the strength and symmetry of that done in our up-to-date factory devoted to the manufacture of *Modern American Goods* by *Modern American Methods*.

Notice the convenient and safe way in which we fasten the oil pot to the lamp. A turn of the hand and it is off—a turn of the hand and it is on, and when on, absolutely safe from falling off.

All live dealers sell them at reasonable prices.
Send for circular

R. E. Dietz Company

37 LAIGHT ST., NEW YORK

— ESTABLISHED 1840 —

PETERS' UNION SIMPLEX PNEUMATIC TIRES

FOR MOTOR CARS

In introducing the PETER TIRE to American motorists, we beg to assure them that they will use this superior German Tire with the same satisfactory results experienced by numerous users both on the continent and in England.

Manufactured by **Mitteldeutsche Gummiwaaren-Fabrik, Louis Peter** Frankfurt, Germany

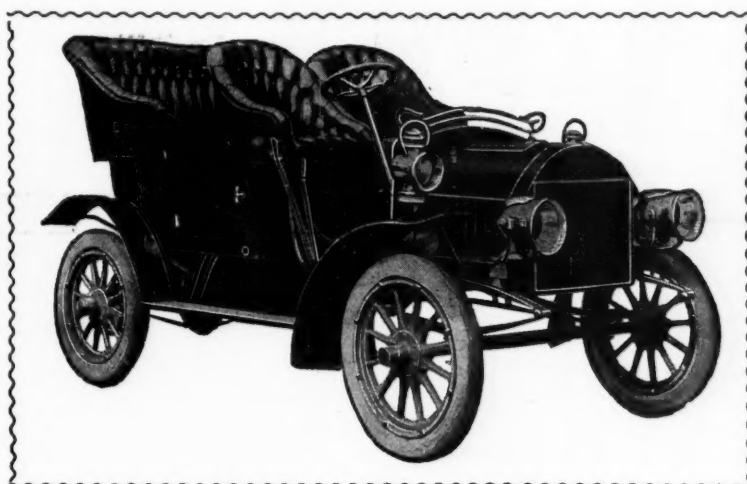
For Information and Prices write

SOLE AMERICAN AGENCY

J. S. HELLER, 123 W. 52d STREET, NEW YORK CITY

The Car Too Good for the Price

Meet us at New
York, Chicago
and Detroit
Shows.



16 H. P. (and lots
to spare); weight,
1750; speed, up to
45 miles.

Price, complete,
\$1,250

Thoroughly Proven in 1904

To Please the MOST People

Let us tell you, Mr. Agent, that the Reliance at \$1,250 will "make a hit" at first sight with a greater percentage of widely different kinds of "prospects" than any car you can get for your 1905 line.

Construction, trimming and finish finest on any car at any price. Unique control system—every speed on direct drive without touching gear levers.

Big tonneau, with comfortable side entrances; double-opposed motor; FULL elliptic springs that make the Reliance the easiest riding American car, regardless of price or reputation; wonderful hill climber; extremely quiet in operation.

100 cars ready Feb. 1. We have a system of guaranteeing deliveries.

WRITE NOW FOR OUR SPECIAL TERMS.

RELIANCE MOTOR CAR CO., DEPT. C., - - DETROIT, MICH.

Notice to the Trade.

We have entered suit against the United States agency of the Michelin Tire Co. for infringement of G & J Patents, and the trade is warned against the purchase of such tires.

The following manufacturers are licensed under G & J patents:

Hartford Rubber Works Co.
The B. F. Goodrich Co.
Diamond Rubber Co.
Morgan & Wright
Fisk Rubber Co.

Continental Caoutchouc Co.
Goodyear Tire & Rubber Co.
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Tire Co.
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G & J TIRE CO., MAIN OFFICE AND FACTORY **Indianapolis, Indiana**

THE MICHIGAN

LIGHT TOURING CARS

FOR 1905

TWO MODELS "E" AND "D"

We shall be at the New York and Chicago Shows

"The Car of Power"

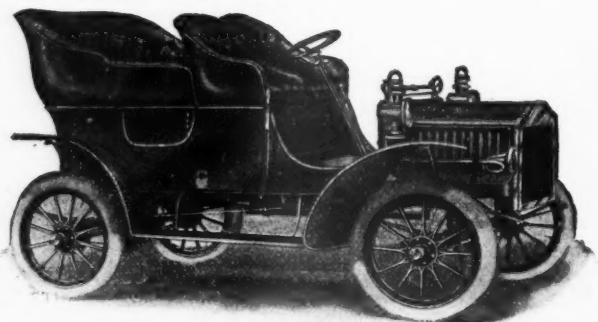
GET IN LINE FOR A MICHIGAN AGENCY
WHILE YOU CAN GET ONE

This superb new creation for the coming season must be seen to be appreciated. It first appeals to the purchaser by its beauty, then it satisfies him by its SPEED, STRENGTH and DURABILITY.

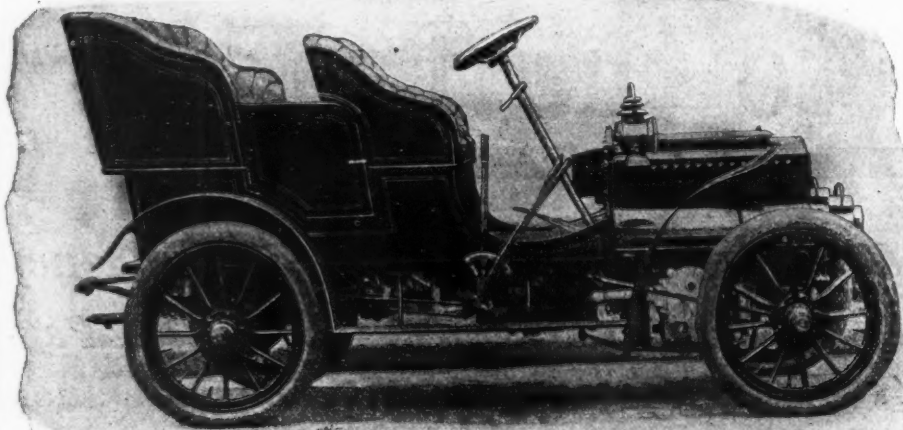
These cars have our tried and tested 1904 Motors, 14-horsepower. 2-cylinder, horizontal, opposed. Strong planetary transmission, Warner differential, Hill Precision Oilier, Kingston or Schebler carbureter, expanding rear hub brakes, full elliptic springs, 86 inch wheel base, 30 inch wheels, 3½ inch tires, side entrance body, individual front seats.

MADE BY

MICHIGAN AUTOMOBILE CO., Kalamazoo, Mich.



Model E, 1905 Michigan—Price \$1,250



Chainless Wolverine Model "D"

crosswise in front, and above all a car SIMPLE in construction and operation, should get a demonstration early at shows in order to secure valuable territory. Best discount, and generous terms and contracts to agents. New Catalog.

Reid Manufacturing Company

Dept. "D"

DETROIT, MICH.

REMEMBER!

Section "B" Basement, Madison
Square Garden

Space 165-166 Chicago at Coliseum

Agents Who Want A Seller

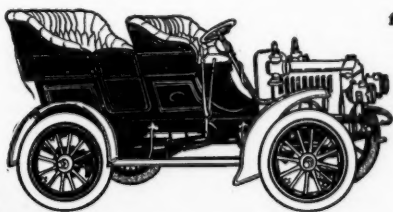
A CAR THAT WILL "STAY SOLD"

With all the specifications of \$3,000 cars, with 20 H. P., sliding gear transmission, 3 speeds ahead, direct drive, two cylinder opposed, set

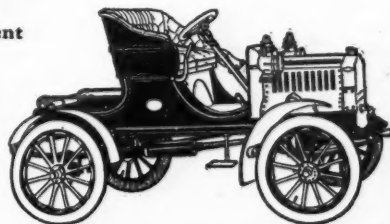
"The Maxwell"

When you have ridden once in a Maxwell Automobile you may perhaps realize its smooth running qualities, its ease of manipulation, and its extreme simplicity of construction; but it is on long acquaintance only that you can fully appreciate those details of construction—those "Maxwell points," as we call them—that have made it a car to be relied on year in and year out, in any weather, on any road—a car that stays out of the repair shop, and in which "there is nothing to do but ride."

16 H. P. Touring Car
\$1,550
for the present

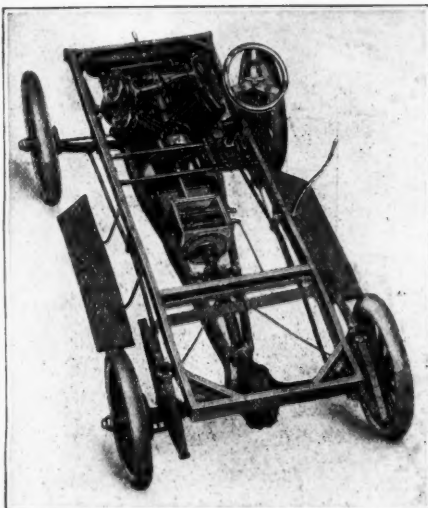


8 H. P. Tourabout
\$700
for the present



The "Maxwell" cars have no pump (thermosiphon). Their double opposed motor shaft drive is in front under the hood and easily accessible in every part. Bevel Gear Drive. Metal Bodies. Transmission Case and Crank Shaft cast in one piece of Aluminum. "Simply perfect and perfectly simple."

Maxwell-Briscoe Motor Co.
TARRYTOWN, N. Y.



PLAN OF CHASSIS

THE MARMON

A MECHANICAL MASTERPIECE

1905 MODEL : : : PRICE, \$2,500

There is nothing like the Marmon—and nothing better. You have never attained the superlative of comfort in automobiling unless you have ridden in it. IT RIDES LIKE A PARLOR CAR. It excels everything at home and abroad in these

EXCLUSIVE FEATURES:

Double Three-Point Suspension—Mechanism and body on separate frames, each hung on three points. No binding strains in transmission. No engine vibration in body. Road jolts minimized.

Unique Motor—Four cylinders set on angle of 90 degrees. Air-cooled, noiseless, efficient. It laughs at hills. Relieved of a great burden of friction, 20 H. P. in the Marmon accomplishes more than 35 H. P. in many other cars of accredited high grade.

Automatic Force Lubrication—Starts and stops with engine, reaches all bearings, and positively marks the end of oil troubles.

Rigid Shaft Drive—Full power delivered to wheels by unbroken shaft, bevel gears and inner driving axle. No Cardan joints. Spur planetary transmission, runs in oil.

Control—Quickest, simplest and surest yet devised.

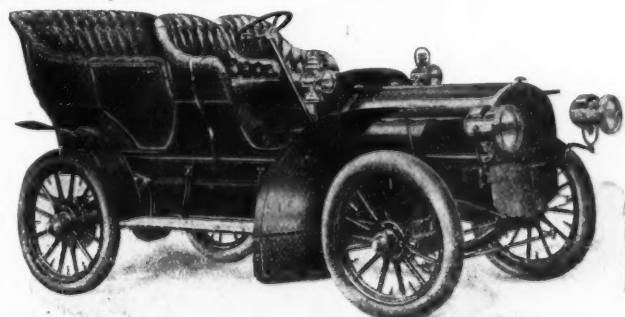
The Marmon excellence is not confined to the major "talking points," but extends to every ounce of material used, to the accurate workmanship on the threading of the least important bolt.

The general design of the car is graceful and roomy, with luxurious double side entrance tonneau. With ease, comfort and high speed it exemplifies the extreme luxury of motion. Guaranteed in every part.

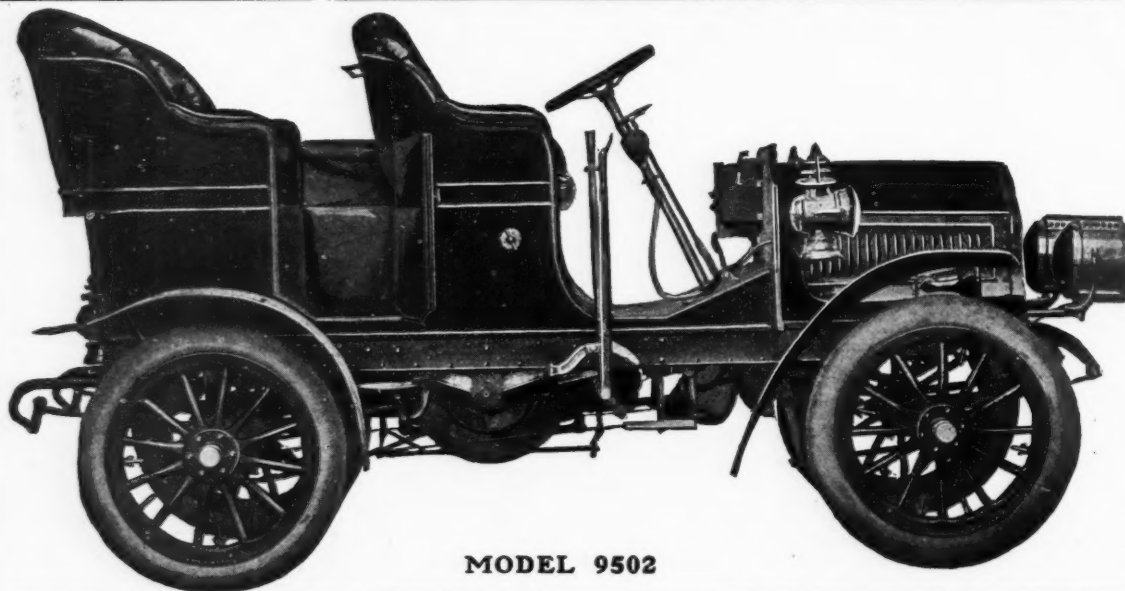
A FEW GOOD AGENCY CONTRACTS OPEN

NORDYKE & MARMON COMPANY

Established 1851 : : : INDIANAPOLIS, INDIANA



SIDE VIEW OF CAR

1905**STUDEBAKER****"THE AUTOMOBILE WITH A REPUTATION BEHIND IT."****Gasoline****MODEL 9502**

**Side Entrance
Two Cylinder
Gasoline Car
Price, \$1350.**

**or
With Rear Entrance,
\$1250.**

including Side Lights, Tail
Light and Horn.

The Studebaker Electric Victoria Phaeton is ready, and is without question the handsomest machine of its type ever constructed.

STYLE. This is best appreciated when it is compared with other cars.
SIZE. Capacious seats and ample leg room for five occupants.

FINISH. In upholstery and appointments it is fully equal to the highest priced cars.

SPECIAL FEATURES. The least vibration of any car of its class. All working parts easily accessible and well protected. Light feed oiler on dash keeps all engine bearings thoroughly lubricated. Ample locker space for baggage. A 10,000 mile test applied to each of several cars, selected at random, brought no accident and revealed no flaws. *Every part of this car is "Studebaker" quality.*

CONTROL. The method of control is the simplest and surest known in automobile practice, and is within the ready comprehension of an inexperienced person. An improved form of planetary change gear, extremely durable and free from noise, is used. Speed may be regulated at will by a foot lever, leaving both hands free for steering. Brakes act both on rear axle and rear wheel hubs. One turn of the crank starts the engine. For complete details write for catalogue.

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Studebaker Automobile Co., South Bend, Ind.

Member Association Licensed Automobile Manufacturers

Agencies in all Principal Cities.

A FEATURE OF THE SEASON 1905

The Automobile Street Car

Adapted for
**Cross-Town
and
Rural Lines**



BUILT BY

The Auto-Car Equipment Company

BUFFALO, N. Y., U. S. A.

Trucks
Delivery Wagons
Sight-Seeing Cars

COMMERCIAL VEHICLES

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Trackless Trolleys

NON-SKIDDING

SAMSON**Leather Tire and Protector**

NON-PUNCTURABLE

Paris

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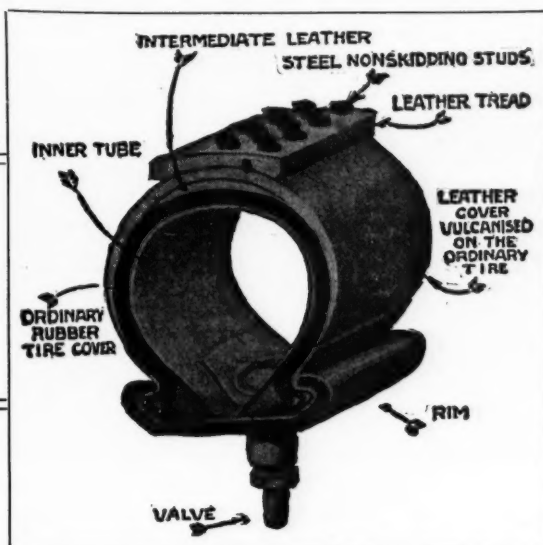
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12 West Thirty-third Street, New York City
 Opposite The Waldorf

**THEY ALL TOLD US**

that the American trade and the American public
 would not pay the price of a truly high grade tire.

OUR ANSWER WAS THE**FISK HEAVY CAR TYPE TIRE**

which was made first and priced afterward. It
 costs more than any other because it is worth
 more. It represents the finest workmanship and
 the very best materials money can purchase. Its
 success proves that just such a tire was wanted,
 particularly with such a fastening as goes with
THE FISK.

**The Fisk Rubber Company, CHICOPEE FALLS
 MASSACHUSETTS**

BRANCHES: New York, 754-756 Seventh Ave., Chicago, 52 State Street

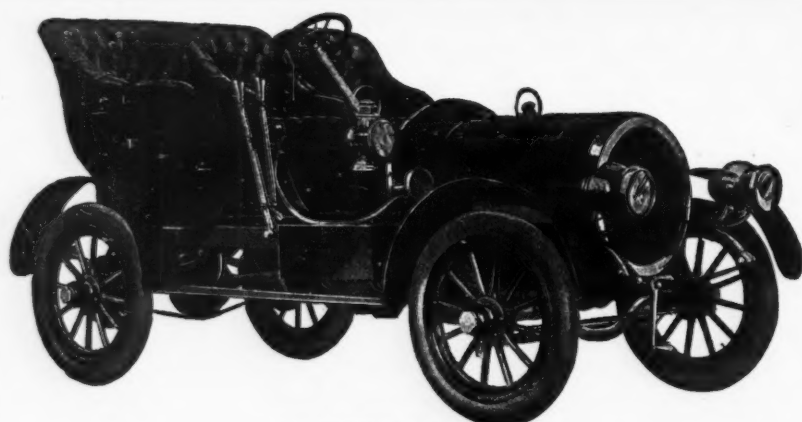
BOSTON,
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BUFFALO,
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PHILADELPHIA,
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OMAHA,
 MINNEAPOLIS,
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NATIONAL, MODEL C.

Side entrance detachable tonneau....divided front seats....five passenger capacity....new round radiator....oval hood, dynamo, storage battery and dry cells....five lamps, generator and horn....tires 34 by 4....positive oiler....luxuriously upholstered in leather.

PRICE, - \$2,500.00

The Best Touring Car Agency in America For 1905

National Motor Vehicle Co.,

1006 E. Twenty-Second St., INDIANAPOLIS, IND.

WRITE NOW

National MODEL "C"

"GOES THE ROUTE"

With NATIONALS You
Lead - - Others Follow

Four cylinder 4 1-4x5 vertical.

Bevel gear drive.

Double ball bearing slide gear transmission—direct on high.

Hardened steel gears.

Gear driven commutator.

Rear wheels revolve on double ball bearings on outside axle tube.

All weight taken off inner axle and differential.

Spherical drive case.

Internal expanding metal to metal brakes.

Pressed steel frame. Long wheel base. Engine and transmission on sub frame. Double steering connections.



BENZ-PARSIFAL MOTOR CARS

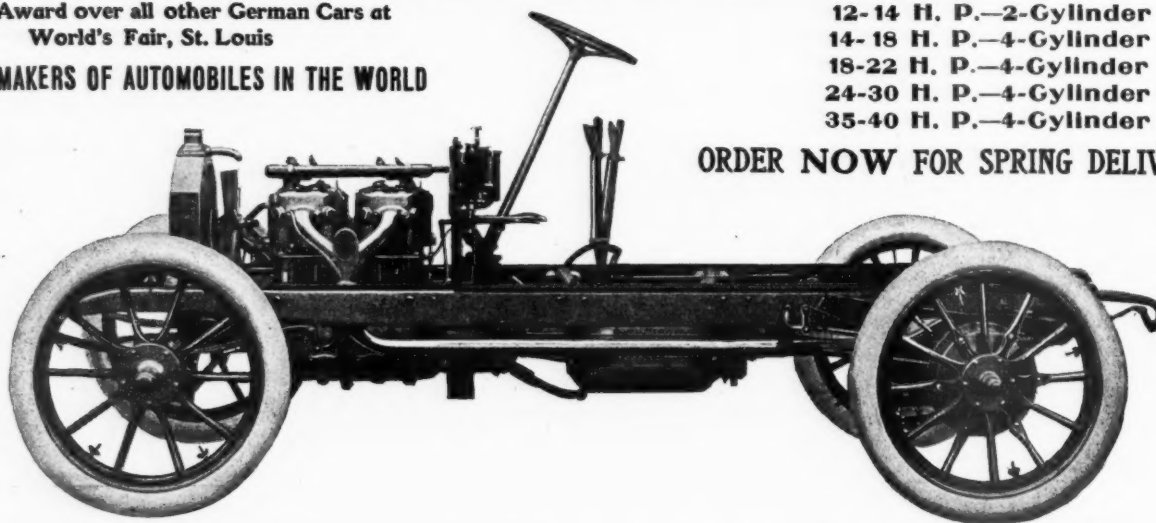
Manufactured by BENZ & Co., Mannheim, Germany

Highest Award over all other German Cars at
World's Fair, St. Louis

OLDEST MAKERS OF AUTOMOBILES IN THE WORLD

12-14 H. P.—2-Cylinder
14-18 H. P.—4-Cylinder
18-22 H. P.—4-Cylinder
24-30 H. P.—4-Cylinder
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ORDER NOW FOR SPRING DELIVERIES



MEAD MOTOR CO.

1243-45 Wabash Ave.
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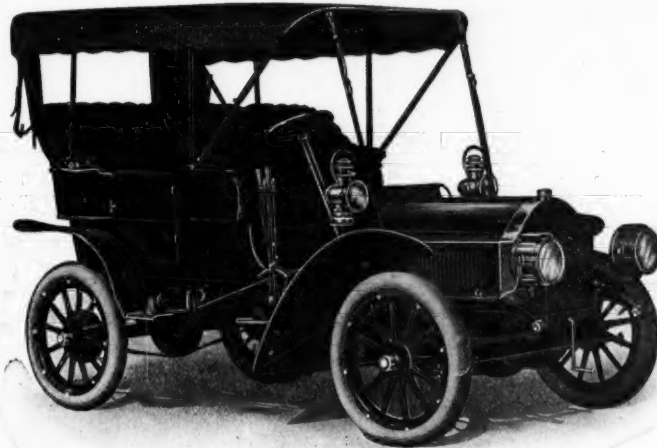
Exclusive Importers BENZ & CO. Mannheim, Germany \$3,000 to \$10,000

Chicago Agents for THE MOLINE 4-Cylinder :: \$1,600
2-Cylinder :: \$1,000

Chicago Agents for THE GALE Runabout :: :: \$500

STEVENS DURYEA

NEW 20-HORSEPOWER, 4-CYLINDER TOURING CAR—MODEL R.



SEE OUR EXHIBIT
AT
NEW YORK
AUTOMOBILE
SHOW
MADISON SQUARE
GARDEN
JAN. 14-21.
AREA A. MAIN FLOOR

SEE OUR EXHIBIT
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AREA A. MAIN FLOOR

Aluminum Body—Side Entrance Tonneau—Capacity, 5 Persons. Pressed Steel Frame—Three Speeds and Reverse—Three Brakes—Four Individual Cylinders—Bevel Gear Drive—Water Cooling—Standard Equipment—Weight, 1650 Pounds.

PRICE, \$2,500

J. STEVENS ARMS & TOOL CO.,

705 Main Street, Chicopee Falls, Massachusetts.

Members Association of Licensed Automobile Manufacturers.

Agents!
Write for Special
Proposition on
Unoccupied Territory

Send for
Descriptive Folder
Embodying
Full Details.

The Motor Car For 1905--and the Next Decade

THE **Springer** MOTOR VEHICLE

General Offices and Factory: 242-244 West 41st St., New York City.

TOURING CARS, RACING MACHINES, DELIVERY WAGONS AND TRUCKS

FOR THE BUSINESS MAN, THE BUSY MAN, THE RICH MAN

FLEXIBILITY OF POWER SUCCESSFULLY REALIZED—EITHER 12, 18, 24 OR 30 H. P. IMMEDIATELY AVAILABLE AND CONTROLLED FROM SEAT AT WILL OF OPERATOR, WITH PROPORTIONATE FUEL CONSUMPTION, SOMETHING NEVER BEFORE ACCOMPLISHED

All the Popular Features, essentially up-to-date, combining more Radical Improvements than any other Machine before the Public

POWERFULLY CONSTRUCTED—Absolute Perfection—Conservative Price

IT STANDS ALONE IN POPULAR FAVOR

BUILT RIGHT—STARTS RIGHT—RUNS RIGHT—STAYS RIGHT

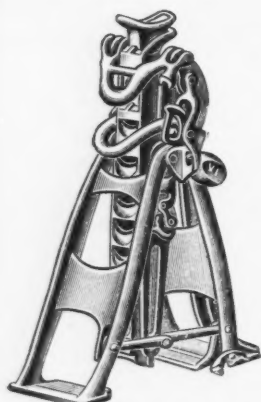
Every part made in our own Factory, under direct personal supervision

SEE EXHIBITION, SPACE N-1, MADISON SQUARE GARDEN AUTOMOBILE SHOW, JANUARY 14-21, 1905

When in New York, call at our factory, in the heart of the city, and learn all about Modern Automobile Construction.

Opportunities for High Class Agents

Handsomely Illustrated Catalogue on Application



No. 6 SET UP.



No. 8 & 10 FOLDED

VALUED FEATURES OF JACK CONSTRUCTION
HAVE FROM THE FIRST BEEN IN

Searls' Motor Car and Carriage Jacks

The unknown, inexperienced users had to be reckoned with. Improvements one after another have followed until we have abandoned teaching—that is no longer needed. Simply swinging out the legs sets the jack up with broadest base; folding the legs sets it up again for use, smallest base. This is so simple and practical none can go wrong.

See us demonstrate the strength,
ease of operation and lifting power
at Space K, Concert Hall, New York
Show, January 14th to 21st.

JERSEY BRAKE CO.

GREEN AND COLUMBIA STS.

Newark, New Jersey

U. S. A.



No. 6 FOLDED



No. 8 & 10 SET UP

YOU WILL FIND EVERY MANUFACTURER OF
AUTOMOBILES AND ACCESSORIES AT THE

CHICAGO SHOW **FEBRUARY 4 TO 11, 1905**

For details of railroad rates, consult American Motor League, Vanderbilt Building, New York, whose officers will indorse certificates held by members only.

No reduced rate has been granted on account of the Show.

Morning sessions closing at noon, free to the trade on presentation of business card, or other proof of identification.

S. A. MILES, Manager

New Southern Hotel

Chicago, Illinois

IT WAS NOT ONLY THE RABBIT THAT GOT HURT LAST YEAR —
THE LANTERN MAKER HAS BEEN UP AGAINST IT TOO



GET THE BEST

ULTRA—BEYOND—all others in Efficiency and Ease

ULTRA Compound Auto Pump

with or without gauge

But if *gauge* is used you will know when tires are properly and uniformly filled. Autos, as well as tires, run easier and wear longer if wheels are the same size.

EASY—Easier than inflating bicycle tire with ordinary pump.

STRONG—Cannot be broken or put out of order with the hardest use.

SMALL—Total length closed only 19 inches. Can be carried in the tool box of any automobile.

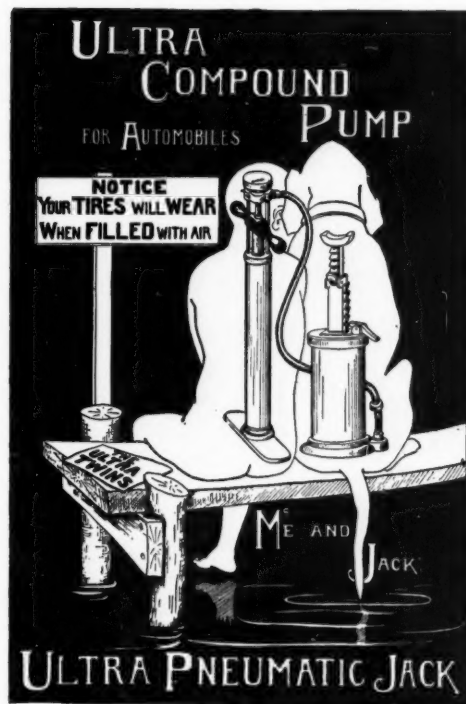
IT IS THE ONLY PUMP

Fitted with a practical working *Pressure Gauge*. This gauge is made specially for this pump, and is only 1½ inches in diameter.

DON'T PAY \$250 for a set of tires and allow them to be ruined by not using

"The Best Pump Made"

Fully guaranteed. Money refunded if not satisfactory



ULTRA PNEUMATIC JACK

...is the...

EASIEST

SIMPLEST

QUICKEST

STRONGEST

and MOST

EFFICIENT

Jack ever made for Automobile or Truck use. The heaviest touring car can be elevated with half a dozen strokes of the pump—in as many seconds.

It is *lowered instantly* by a light touch on the exhaust valve. And for either operation you

Don't Have to Get Under the Car

Operates between 10½ and 24 inches. Diameter 4 inches. Small enough to go in any tool box. *Nothing to get out of order.* Fully guaranteed.



Write for descriptive matter
at once

ULTRA PUMP & POWER CO., 222 Water St., Auburn, N. Y.

Veeder

Form D ODOMETER



Register Only.
(Full Size.)

VEEDER FORM D ODOMETER,
Showing Form D 2 (bevel drive) and Form
D 1 (straight drive), respectively.

For the dashboard

This instrument has two dials, the upper one of which may be set to zero in the start of each day or trip, while the lower keeps a record of the total distance traveled. Both dials register in tenths of miles, the right hand figure on each being in red. The figures are of good size, and, instead of being separated and spread over a large area, are compactly arranged.

A flexible shaft from the left front wheel of the car drives the instrument. In the Veeder Form D Odometer this shaft operates at a comparatively slow speed, avoiding breakage and excessive wear. We supply the Form D1 or the Form D2 according to the car for which instrument is ordered.

Price Complete with Fixtures, \$25

The Veeder Mfg. Co.

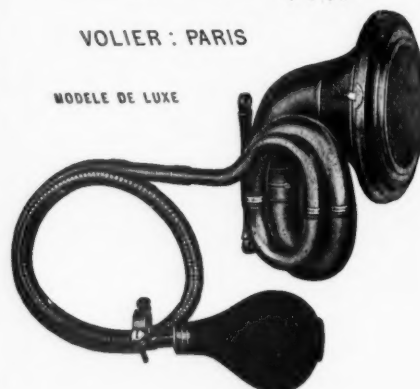
25 Sargeant St., Hartford, Conn.

Cyclometers, Odometers, Tachometers,
Counters, &c. Fine Castings

Volier Horns

VOLIER : PARIS

MODELE DE LUXE



the Volier Dragon

This is the original and genuine Volier, with non-corrosive reed and chemically cured bulb. The price is \$10.00 for the 6-inch bell, and \$12.00 for the 7-inch bell. Imitations of this horn will doubtless appear. They are only imitations.

The Post & Lester Co.,

35 Sargeant St., :: Hartford, Conn.
SOLE AMERICAN DISTRIBUTORS VOLIER HORNS

Notice

A SPECIAL PARTY will leave CHICAGO for NEW YORK to attend the AMERICAN AUTOMOBILE ASSOCIATION MEETING, Saturday, January 14th, 11:05 a. m. and will arrive at New York Sunday, January 15th, at 4:30 p. m.

VIA

GRAND TRUNK---LEHIGH VALLEY ROUTE

The Double Track Highway

TRAINS LEAVE Chicago daily at 11:05 a. m., 3:02 p. m. and 8:15 p. m.
DINING CARS on all trains serving meals a la carte.

For Sleeping Car Reservations or any further information apply to

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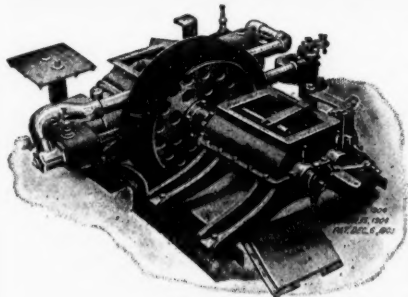
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BRENNAN Standard Motors

are unexcelled for simplicity of construction, substantial and large bearings, ease of adjustment. All parts unusually accessible for inspection.

Built in 6, 8, 12, 14, 16 and 20 h. p. Investigation solicited.

We make a specialty of Motors for

THOMAS MODEL 18, CADILLAC FORD AND OLDSMOBILE

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Brennan Motor Co., Syracuse, N. Y.

GENTLEMEN: The 14-H. P. motor which we purchased of you last January we have mounted in a car that weighs 1,850 pounds. Car has been driven 4,000 miles and the motor has given excellent results and drives the car 40 miles an hour. We made the run from Syracuse to Utica in 2 hours and 20 minutes. Total time from Syracuse to Albany 8 hours; time from Boston to Syracuse 20 hours.

The car weighs with two passengers and luggage 2,350 pounds. We also wish to state that after using several makes of carbureters that we obtained the best results from your make of carbureter.

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None Genuine Without
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Acetylene Burners

SOME ADVANTAGES

They are Recognized Standard Burners the World Over

Accurate in consumption. Free from carbonization and other troubles, and they are

Licensed under Patent 589342, August 31, 1897. This patent has been adjudicated by the U. S. Court of Appeal and is VALID.

We advertise not only our burners, but also those firms who confine themselves to equip their lamps with **Licensed Burners.**

Is there any reason why you should equip your lamps with cheap

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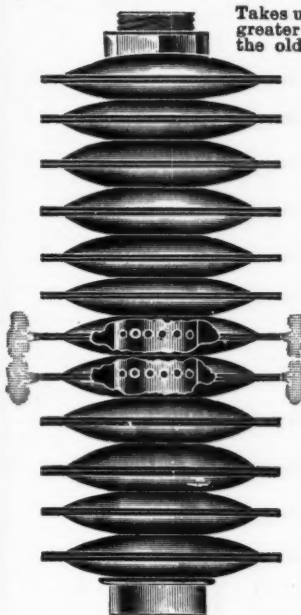
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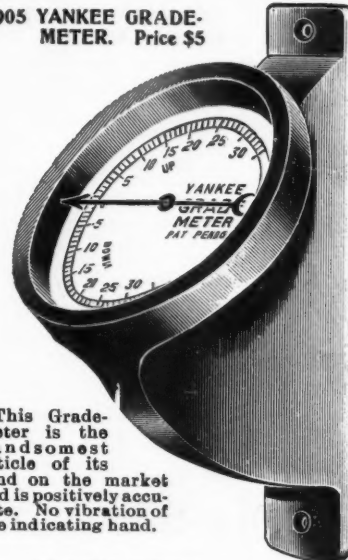
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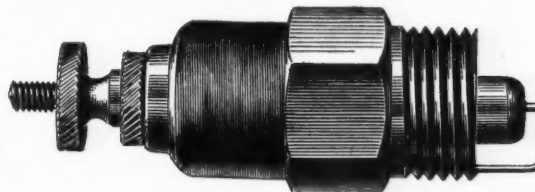
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Switch blade instantly detachable, which locks your car in your absence. Cannot be short circuited. May use two sets of batteries, separately or alternately, or you may double your amperage at will.



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The Top that can be closed with Side Curtains, so as to make it Storm Proof
EXCLUSIVELY USED ON THE THOMAS AND LEADING CARS

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Unaffected by heat, grease, oil or
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A prominent dealer in automobiles remarked recently that the Elmore was not a good machine for agents to handle on account of there being no repairs needed. His opinion and ours differ. We do not think that it is necessary to make an automobile that has certain parts that require periodical replacement and the constant care of repairmen, to make it a good selling proposition.

In fact, that is just the opposite to the policy we are pursuing. Our endeavor is to produce an automobile so simple and reliable



that the purchaser, if he receives instructions from the help of our instruction machine in good order without constant help of repairmen.

The records that the Pathfinder made the past year have shown conclusively that our efforts have produced the desired results, and that our 1905 models are as good as an automobile can be made at this time.

has received prop- agent, with the book, can keep his machine in good order without constant help of repairmen.

SEND FOR LITERATURE GIVING FULL DESCRIPTION

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Members of the Association of Licensed Automobile Manufacturers

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THE YALE

FOR 1905

\$1,000.00

Side Entrance \$1,100.00

IMAGINE to yourself the prettiest touraround that ever dashed down a road—a flash of gold and blue, whizzing by with no more noise than a mere musical whirring of the wheels.

Try to conceive a car so filled with power that it is like a living thing; and so instantaneously responsive that it can be controlled by a touch of the thumb and index finger. When you've formed this mental impression you've only begun to get an unexaggerated notion of the Thousand Dollar Yale for 1905.

The new double cylinder Yale weighs only 1,400 pounds, with over an ounce of continuous power for every pound. Seats four and even five, and takes the meanest hills at high speed. You mustn't even think of considering any other car at any where near the price before you've read, heard and seen more of the Thousand Dollar Yale for 1905.

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Seven Years Hard Labor have been spent in developing and perfecting the

WAYNE CARS



Model "C" shown in cut has 16 H. P. double opposed motor, planetary transmission, 90 inch wheel base, double side entrance tonneau. Price \$1,250.00.

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NEW YORK SHOW, SPACE "C." CHICAGO SHOW, SPACES 107-108.

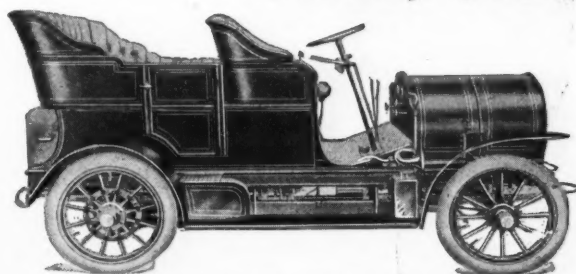
We shall be glad to demonstrate the merits of our cars at the New York and Chicago shows, or to send our catalog to those who appreciate quality and reliability at a moderate price. Will you write us today?

We have some good territory open for live agents and have an attractive proposition to make if you will write us at once.

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Chicago Agency—McDuffee Auto. Co., 1145 Michigan Ave.
Boston Agency—Walter C. Masters, 14 and 16 Columbus Ave.

Price, \$1500



THE NEW GROUT FOR 1905

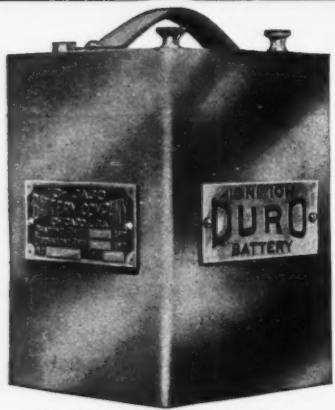
A few of the leading features in construction and equipment that appeal to everyone interested.

Twelve H. P. horizontal engine, running in an aluminum case with new continuous oiling device, lubricating every moving part positively. 18" copper, wire bound, boiler of our own make, thoroughly guaranteed. New one piece case iron burner with noiseless pilot that cannot be extinguished by any wind. New throttling device in connection with perfected superheater. New fuel system that eliminates complication. Power, air and water pumps that run off countershaft and remove all illegitimate strain from the engine. Side chain drive. Internal expanding brakes of new construction. Automatic drought arrangement. Very long springs and most modern body hang up. The equipment includes full set of tools and parts in special tool case on running board. Large acetylene headlight and acetylene water glass lamp from one generator. Two side oil lamps, all of brass. Large horn and tube. This car will seat five people comfortably.

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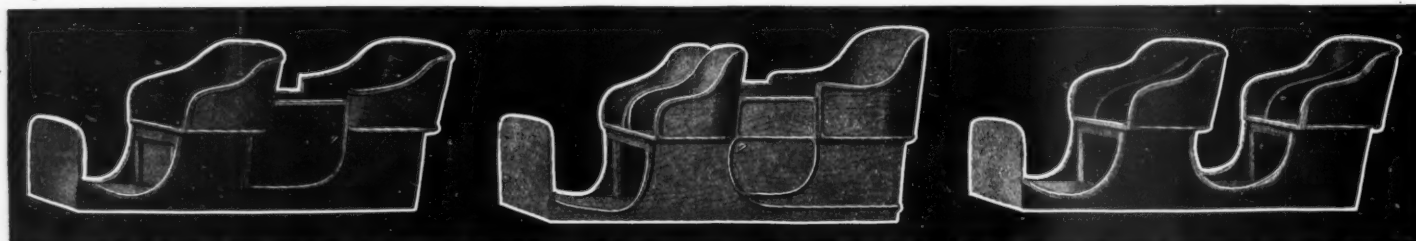
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These are but selections from our numberless Styles Models
Remember, we sell all Motor Car Parts Ready to Assemble

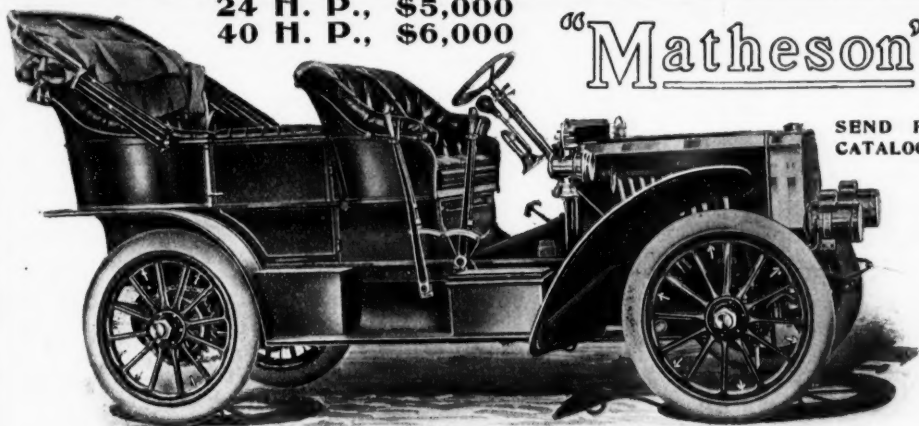
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24 H. P., \$5,000
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CHARACTERISTIC FEATURES:

Self-starting from the seat.
Practically noiseless.
Absence of vibration.
Four-cylinder vertical engine.
Valves, in the head.
Automatic carburetor, never requires adjustment.
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Speed—Guaranteed 40 to 60 miles an hour, according to H. P. gear.

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The B. & J. Lockswitch



Applicable to any car. As reliable as a bank vault lock.
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FIRST-CLASS CAFE AT POPULAR PRICES.

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Safe, Speedy and
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THE HAPPY MEDIUM

The St. John Solid Rubber Cushioned Tire

The greatest tire man's ingenuity ever produced.

The tire that solves the most vexing problem now presented to both the manufacturer and private owner of automobiles.

It cannot PUNCTURE. Perfectly RESILIENT, and saves one-third the power now expended on other tires. Fits regular Single and Clincher rims. Easily applied.

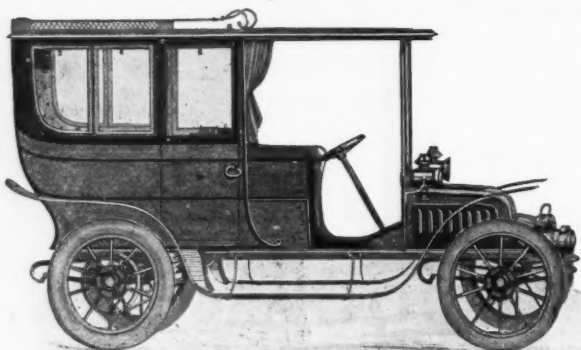
Adopt our tire and save annoyance and expense.

Write for our 1905 Catalogue, with testimonials, etc.

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PURCHASE THE CHASSIS Then let us make a Special Body to suit your individual taste.
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We have clean, dry Storage Rooms where cars are not interfered with or handled when in storage. **PRICES REASONABLE.**

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IT has been our good fortune to secure the three most highly prized assembled frame orders of the season. Our experience in frame manufacture evidently counted largely with these concerns. They didn't consider cost so much as quality and work methods. Besides, they know that ours is the only factory in the country which is equipped for testing complete assembled frames.

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We will exhibit at the New York and Chicago shows.

A. O. SMITH COMPANY
MILWAUKEE

Selling Agent: HAYDEN EAMES, American Trust Building, Cleveland, Ohio

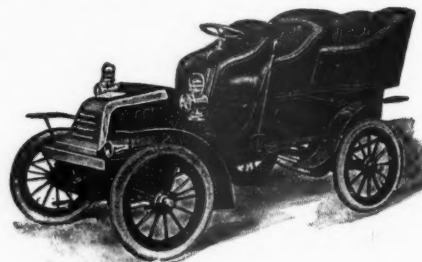
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A Runabout and Light Touring Car

Its motor is the heart and life of an automobile. Without a powerful and reliable motor, the car will prove unsatisfactory and of no service.



\$750 \equiv **\$850**

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19 YEARS MAKING GAS AND
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Our 8,000 motors, aggregating 50,000
h. p., doing business all over the
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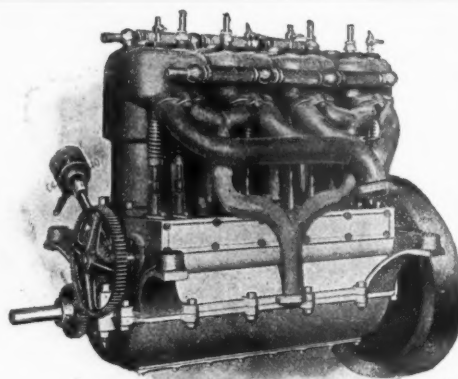
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We manufacture a strictly high grade,
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8 h. p. mechanically operated valves; transmission, three speeds
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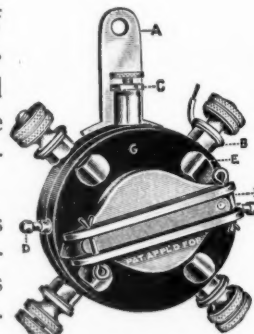
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This is one of the ten types that we manufacture and design. We have particular types of Engines and Applications for Pleasure Vehicles, Trucks, Railway Apparatus and Marine Crafts.

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Our patented **P. V. TIMER** is absolutely unique and always instant and positive in action. It is really the only perfect and satisfactory Igniter.



The P. V. Timer

MOTORS AND ACCESSORIES

Manufactured by the

**CONTINENTAL
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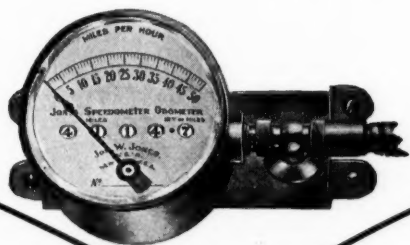
Are identified by their Per-
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ciency in both Automobile
and Marine Use.

THE JONES SPEEDOMETER ODOMETER

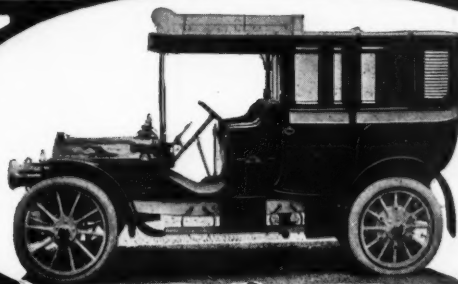
JONES Dashboard Speedometer-Odometer is a combination instrument; it will accurately register the speed of an automobile and at the same time measure the distance traveled. A mechanically perfect device, absolutely accurate in registration.

Write for a copy of "The Speedometer," a little "organ" on the "speed" question; sent free for your name.

Jones Speedometer, 121 W. 32d St., New York



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1905 Models
18-22 Horsepower
30-40 Horsepower

Product of Switzerland's best mechanicians, famed for centuries as best in the world. First car to complete a reliability run of 4,000 miles under the auspices of the Automobile Club of Great Britain and Ireland.

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**We are
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"E & J" Lamps cover every element of construction where improvement was possible. Investigate what we have to offer.

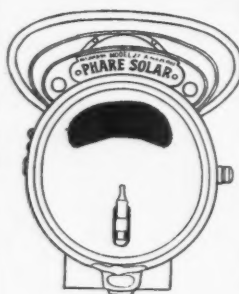
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SOLAR LAMPS

in the first rank. You who have used them know this, you who have not should be convinced by this Award. You, Mr.

Dealer, should insist upon them as equipment, for your customers will demand Solars. No lamp troubles with Solars.

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Valves, Cam Shafts and Pumps

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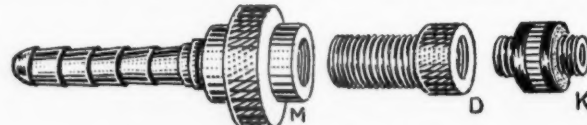
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M. D. K. CONNECTION PATENT APPLIED FOR



Complete Sample mailed for 25 cents

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PRICES: { M, D, K complete . . per 100 \$20.00 "D for M" alone per 100 \$5.00
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We believe that with this combination any tire in this country, imported or not, can be fitted

STEVENS & CO. 99 Chambers Street
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Speed-Indicator

"Just How Fast"

WEBB Odometer

"Just How Far"

Speed-Odometer

"Both How Far and How Fast"

See Our Exhibit New York and Chicago Auto Shows

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Acme Improved 1905NO BACK
PRESSURE**MUFFLER**Write for
Circulars

Light

Silent



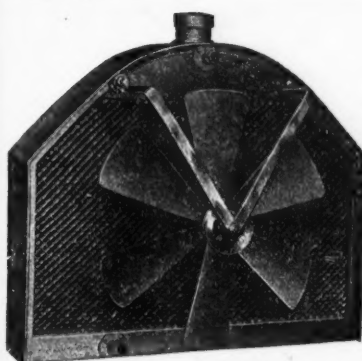
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Simple
Construction

6 Pieces

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A. L. DYKE, St. Louis, Mo., Southern Agent
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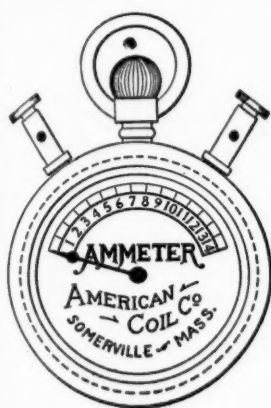


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WHITLOCK
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Tested and Adopted by
90 Per Cent
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Manufacturers of
HIGH GRADE CARS
FOR 1903-1904-1905
Any Design or Style of Cooler Made to Order.

THE WHITLOCK COIL PIPE CO., HARTFORD, CONN.



Every operator of an Automobile,
Motor Cycle, or Launch should
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POCKET
AMMETERS**

For testing dry cells. The only
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Monogram Oils

...Made by...

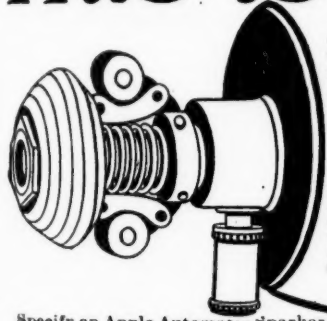
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"FIRST AID TO AUTOMOBILES"**DISTRIBUTING DEPOTS**

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Denver San Francisco and Toronto, Canada

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This is the mechanical generator of
electric current for ignition that is creat-
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motor users everywhere.

**The Apple
Automatic Sparker**

is the surest and most satisfactory igni-
tion device made. It is a perfect dyna-
mo that furnishes a hotter spark and
surer ignition, thus giving greater speed
and power than is possible with dry bat-
teries of any sort. When used with our
igniting and lighting outfit it furnishes
enough current to run 3 electric lights.

Specify an Apple Automatic Sparker
to furnish current for your engine.

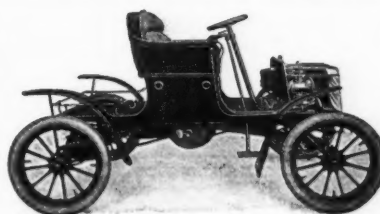
Write for full information about
our modern ignition apparatus of every kind.

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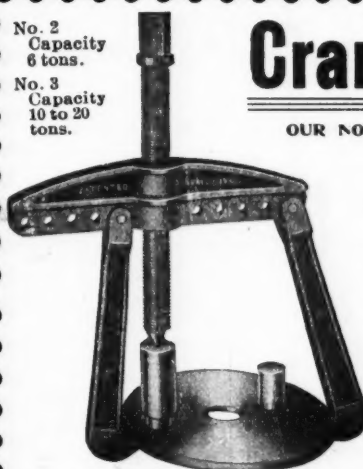
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Capacity
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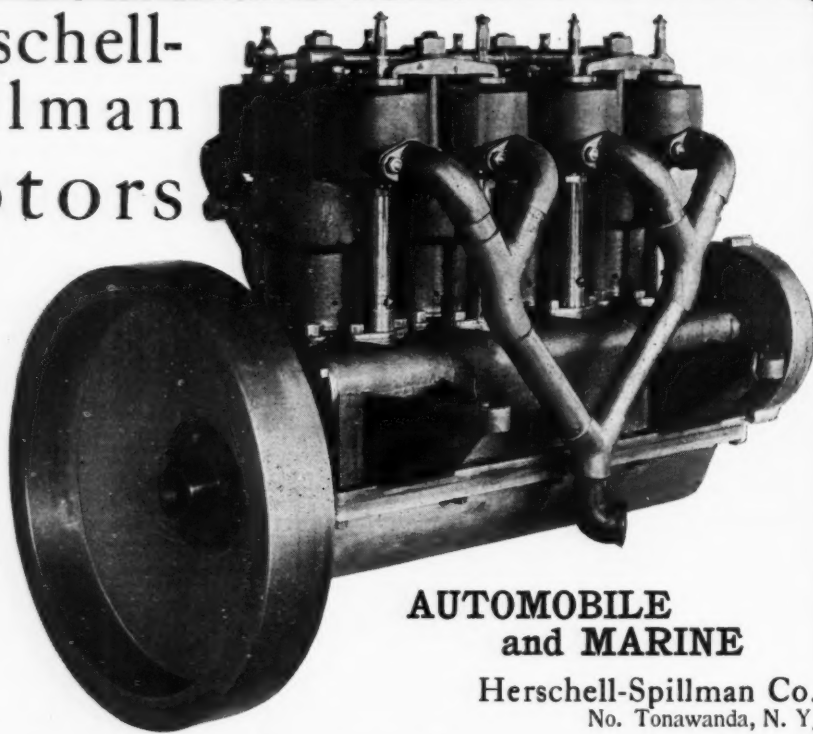
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— Works at any angle —

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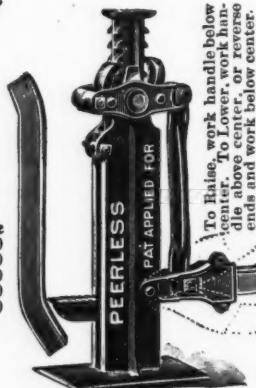
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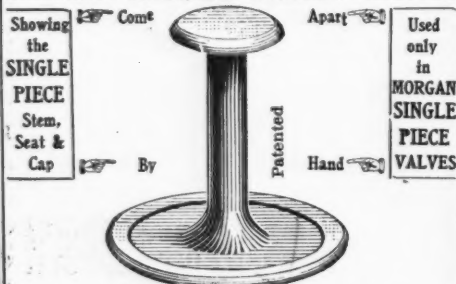


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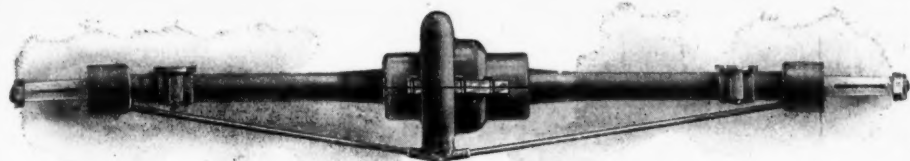
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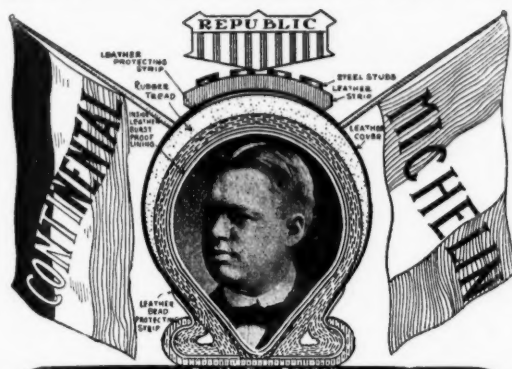


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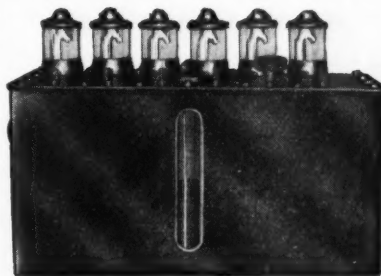
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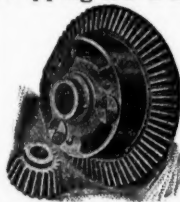


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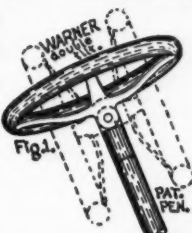


Fig. 1

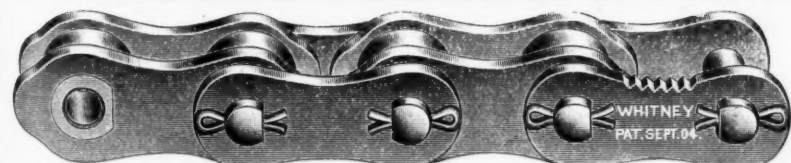
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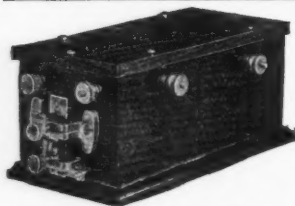
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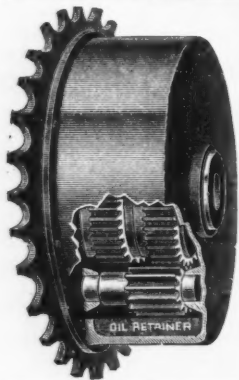
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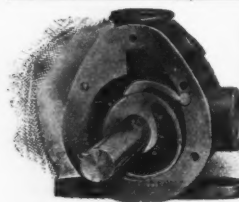
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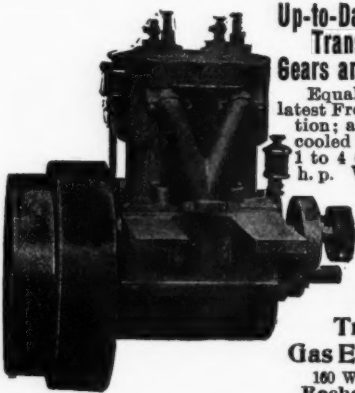
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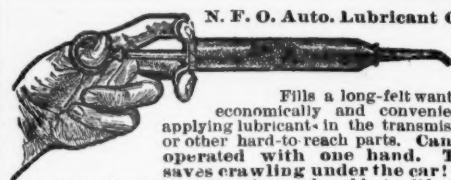


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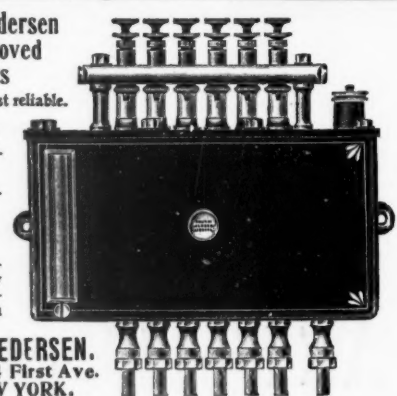
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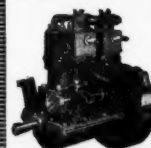
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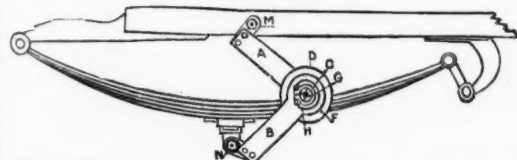
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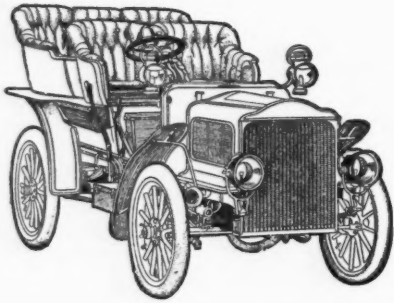
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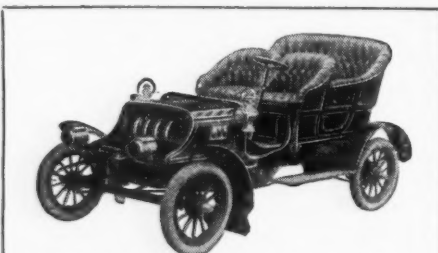
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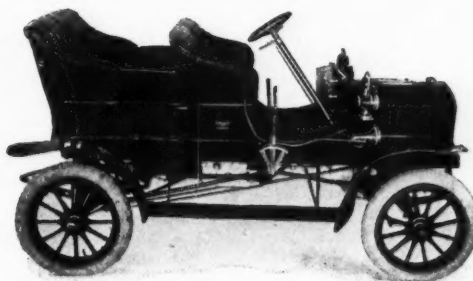
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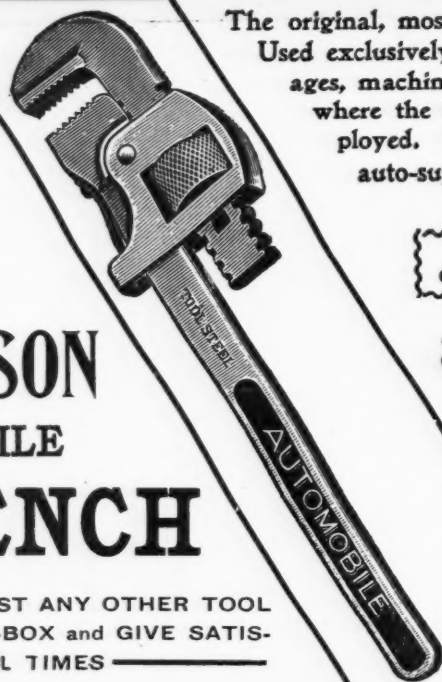
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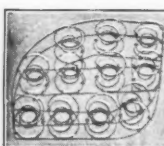
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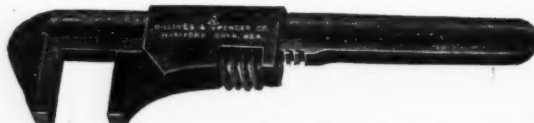
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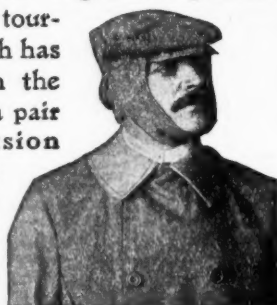
Position 1

SO favorably
were we im-
pressed with this
model which our
designers con-
ceived, that we
petitioned
for a patent
which has
been grant-
ed. The

illustrations clearly convey to the eye
the four functions which this cap faith-
fully answers. Figure one presents

a dignified tour-
ist cap which has
attached in the
back fold a pair
of wide vision
goggles cleverly
concealed.

Figure two
shows the
hood in
service.



Position 2

The visor is flexible and
easily turned up
into the crown
of the cap when
the mask and
goggles are in



Position 3

service
as Figure
three de-
picts.

From the
wind, the
snow, the dust and rain does the
cap warrant immunity.

- a. Of Cheviot Cloth, in mixtures;
Burberry Cloth, in grey or tan;
Cravenette Cloth in mixtures;
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Linen in tan or any other fabric
of which our garments are
made, \$4.75
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